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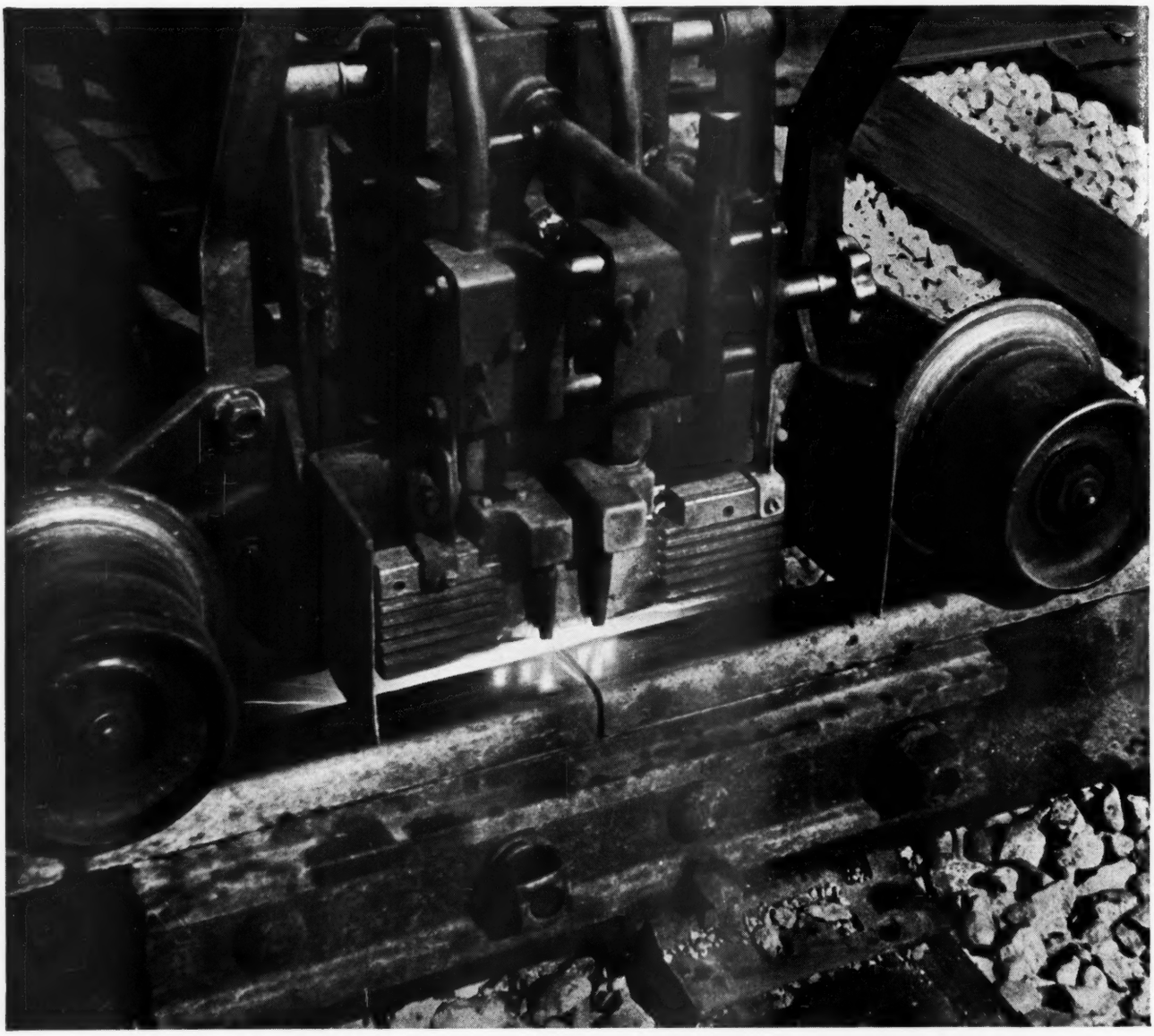

Reduce Joint Maintenance Expense by END-HARDENING RAIL

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RAILWAY AGE

Economic Policies Versus Preparedness

For ten years the statesmen, the business, agricultural and labor leaders, and the people of the United States have been confronted with the problem of economic recovery. They have made no progress toward solving it. Allowing for differences in prices, average annual national income *per capita* was the same in the five years ending with 1934 and in the five years ending with 1939—$486. In 1930, the first year of depression, it was $566; in 1939 only $476. Now everybody suddenly has awakened to a realization that we are confronted with another great problem—that of national defense; and most of the talk, especially that emanating from Washington, is about this problem. If we don't do any better in solving both these problems than we have in solving one of them, the consequences may be dire, indeed. We will have for seven months more the same leadership in government that we have had for seven years. In one important respect the principal policy of that leadership for solving the problem of defense apparently is the same as has been its principal policy for terminating the depression—that of greatly increasing government expenditures. What are going to be its other policies?

The New Defense Advisory Commission

There has been appointed a new Advisory Commission on National Defense. There are two tests of an executive—(1) the kind of policies he adopts and (2) the kind of men he selects to carry them out. President Roosevelt's record thus far in meeting these tests has been far from good; but to his new Advisory Commission he has appointed three leading industrialists, Chairman Stettinius of the Steel Corporation, President Knudsen of General Motors and President Budd of the Burlington. Mr. Stettinius will have charge of the procurement of raw materials, Mr. Knudsen of production and Mr. Budd of all kinds of transportation for defense purposes. Sidney Hillman, a CIO labor leader of good reputation, will be expected to prevent or oppose labor difficulties that might interfere. The other four members, who are expected to represent agriculture, prevent inflation of prices, keep consumers satisfied, and so on, have been selected from branches of the New Deal administration.

There is nothing in the present or prospective situation to indicate that the provision of adequate or dependable transportation will present a real problem. The railroads will have to be principally relied upon if we stay at peace; and this will be even more true if we go to war. Freight car loadings are now less than 700,000 a week. They rose last fall to a peak of 861,000 cars. They reached peaks in 1926 and 1929 exceeding 1 million 200 thousand cars. The railways now have many fewer locomotives and freight cars than before the depression. They are approaching the time when, even if they continue to have only a depression traffic, they will have to increase their buying of locomotives and cars merely to provide for replacements. Allowing for equipment rebuilt, the number of locomotives retired has averaged almost 1,800 annually during the last five years and the number installed only about 620, while the number of freight cars retired has averaged almost 100,000, and the number installed about 43,000. There is enough track and yard capacity for expeditiously handling a much larger traffic than is now in prospect.

The expenditures of the government for defense are expected to approach 4 billion dollars a year. With the country's total production ranging from 10 to 20 billion dollars a year less than formerly, it is evident these proposed government expenditures, even if added to those already being made, would not create an additional traffic sufficient to impose any strain on transportation facilities. What is occurring now is large increases in some kinds of traffic, such as forest products, ore and miscellaneous freight, and almost no increases in other kinds. Mr. Budd, a very experienced and able transportation man, who will represent the government in dealing with all classes of carriers, has indicated that as long as this continues his policy will be one of noninterference excepting in possible cases of congestions and delays of kinds of traffic that may be unusually stimulated, and at ports where lack of

ships for loading exports may threaten accumulation of cars.

The Real Question—How Much Commercial Traffic?

The real transportation question is how much *commercial* traffic there is going to be. It is conceivable that if real economic recovery should begin there would be an increase of commercial traffic the addition to which of a large military traffic might cause transportation difficulties. But as this increase of commercial traffic would be due to expansion of production, construction and commerce for supplying the ordinary needs of the people, it would be most desirable even if it did increase transportation difficulties. The real danger is that there will be followed policies that will hinder or prevent such industrial and commercial expansion. What the nation needs most of all is a large increase of production, construction, commerce and income to put it in the condition of economic preparedness necessary to enable it to bear the burden of increased expenditures for military purposes.

Unfortunately, the prospect of policies that will promote both economic and military preparedness is not good. One of the most significant recent developments has been the strike of 4,500 employees of the Federal Ship Building & Dry Dock Company who were working on four destroyers and two cruisers for the Navy as well as on three merchant ships. They demanded a union shop clause, vacations with pay, advances in wages and the establishment of seniority lists. As a result of government intervention they went back to work under an agreement providing for some advances in wages and for continuance of negotiations regarding still larger advances and other matters.

Where the Threat of Trouble Is

Employees of General Motors meantime are seeking a general wage increase, complete recognition of the shop steward system, stronger seniority provisions, time and a half pay for Saturday work, double time for Sunday and Holiday work and vacations with pay. The automobile companies may have to be largely depended upon to produce armament. Because the heads of the transportation brotherhoods joined with the waterway lobby, Congress has failed to pass transportation legislation that all the railway labor unions, excepting one, agreed to support. Railway net earnings in the first third of 1940 were 25 per cent less than in the first third of 1937, 38 per cent less than in 1930 and 58 per cent less than in 1929, while railway wages are higher than in any of these years. The railways need largely increased net earnings to enable them to put themselves in good condition. And yet all the railway labor unions either have presented or soon will present to them demands for various changes some of which would reduce the work required of employees, and every one of which would increase operating expenses and curtail net earnings.

These developments, among others, indicate where the real trouble apparently is going to come from. Contrary to every recognized principle of sound economics during a depression period, labor generally has secured reductions of hours and advances of wages during the present depression. These and other government policies curtailing profits have been the principal preventives of the revival of private investment always essential to recovery from a depression. Now, when we are still in the midst of depression, organized labor is trying to take advantage of the nation's need of preparations for defense to push demands for still higher wages and shorter hours. It is the beginning of a repetition of the experience of France. Will it be continued? Although confronted with the threat of war, the "popular-front" government of that country, consisting principally of Communists and Socialists, adopted the very kind of policies which have been followed in this country during the depression and which organized labor in this country is now trying to get intensified. The result in France was curtailment of both commercial and military production when that country was face to face with a foe that was prepared to strike more swiftly and powerfully than any other nation ever was before. And today France's ally, Poland, is dead, while Norway, Denmark, Holland, Belgium and a large part of France itself are in the possession of Germany.

Seven Years of Present Policies

If we are really to take seriously all the talk from the highest official sources in Washington regarding our vital need of preparedness, this is no time for any patriotic American citizen to be mealy-mouthed about the policies of government, business or labor in this country. We have had seven years' experience with policies intended to enable some of our people to benefit at the expense of others, upon the assumption that changes in the distribution of the national income would not hinder its increase or would be better for our people as a whole than increases in it. The results have been disastrous to a large majority.

In the seven years ending with 1932—which included three years of depression—our average annual national income was 69 billion dollars; in the seven years ending with 1939, less than 60 billion. In the first period of seven years total wages and salaries averaged 47 billion dollars; in the second period only 37 billion—showing that the decline in national income was principally at the expense of the very workers that New Deal policies were supposed principally to benefit. In the first period of seven years the average number of unemployed was less than 5 million; in the second, almost 11 million. In the first period total farm income averaged 9 billion dollars annually; in the second, less than 8 billion, including average annual benefit payments from the federal government of 442 million dollars.

While these policies failed to benefit the working

and agricultural classes at the expense of the "capitalists," they were extremely successful in injuring capitalists and preventing revival of the investment of capital. The average annual amount of new capital issues in the first seven-year period was 3½ billion dollars; in the second, only 629 million dollars. Private construction declined from an annual average of 6½ billion to 2⅓ billion—a decline far from offset by the increase of government construction.

Thus, the result of policies intended to benefit some classes at the expense of others has been to make *all classes* suffer together—although some *parts* of certain classes have benefited at the expense of everybody else and are determined to continue doing so. These policies have put the nation in an extremely poor condition of economic preparedness to stand the burden of providing for military preparedness. Their continuance will continue to have the same effects here—and, if we get into war, the much worse effects that they have had in France. If we are to have both economic and military preparedness—and without the former the latter will ruin us—those who really want them both and have enough intelligence to know what is necessary to secure them, will simply have patriotically and courageously to fight it out in the open with those who ignorantly or selfishly demand what is incompatible with national economic and military security. This is no time for allowing any interest to practice rackets on the American people—and no time for those too cowardly to fight such rackets, either.

Competition, Faced Squarely, Is Not So Bad

Remember when a good safety razor used to cost $5? As long as the customer had the alternative of paying his $5 or going without, there was no doubt that the value of the razor in the market was $5; every buyer proved that when he made his purchase. But when other equally-handy shaving tools appeared at $1 or less—then the old standard "safety" wasn't worth $5 any more.

It is an economic law that *under free competition, prices tend to equal costs.* Prices cannot long continue below costs, or the producer will be starved out of business. They cannot long be kept above costs, or the high-priced operator will lose his customers to competitors.

Despite the regulation of motor carriers, there is no longer any question that a large part of transportation in this country is competitive—not monopolistic. If there were a "commodities clause" for shippers, outlawing transportation in a shipper's own vehicles, then conditions of limited competition would return in transportation; and the value of transportation for high-grade traffic would tend to increase. But under competition, no common carrier transportation service—no matter how valuable the goods—is worth a cent more than it would cost the shipper to do his own hauling.

There is nothing necessarily ruinous about competition, if one abides by the rules which are necessary for success when it prevails. Razor manufacturers prospered at a price of $5—but, probably, some also prospered at subsequent lower prices. The rules for doing business under competition are different from those of monopoly though. Under competition, the successful business is the one which strives incessantly to reduce its costs—and passes a part of its savings on to customers in order to induce a *high volume* of patronage.

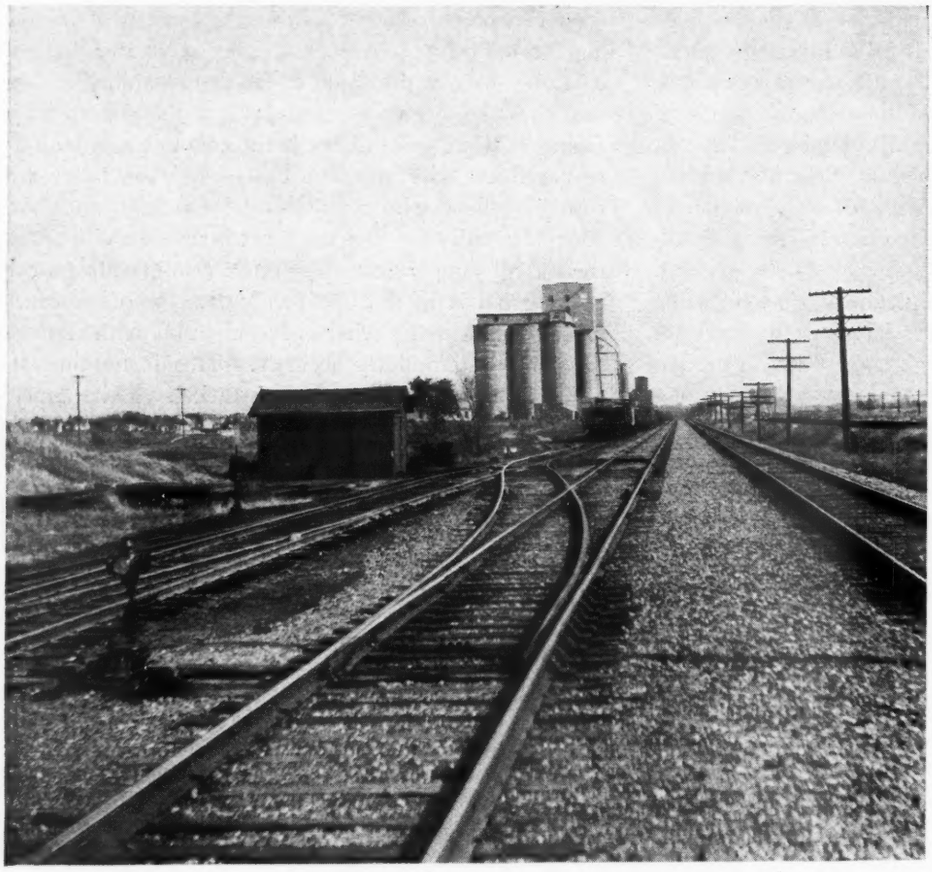
Shifting from a partially-monopolistic era to a highly-competitive one necessitates many adjustments, not all of them pleasant. But adaptability to change is often the test of survival.

It has long been believed by thoughtful railroad men that rate changes have little effect on the volume of traffic. If the traffic is non-competitive, this belief is sound—because the only way in which rates bear upon the volume of non-competitive traffic is by their effect on delivered prices of commodities. A change in rates of 10 per cent might affect delivered prices less than 1 per cent, and hence a rate reduction would be just so much money lost to the carrier. *But what if a competitor is hauling half of a certain movement of traffic, and if a 10 per cent rate reduction would drop below his costs of doing business?* Clearly, in such a case, the theory that rate changes have little effect on the volume of traffic would not apply. A 10 per cent reduction might increase traffic 100 per cent, or a 10 per cent increase might drive all the business away.

All is not loss in present competitive conditions either. Consider the public relations aspect. It is questionable how much the railroads may have gained by comparatively high rates on some commodities, because such rates were coupled with substandard concessions to other traffic. And, in the meantime, who will ever know how much unreasoning resentment was built up in the minds of influential shippers who felt that they were discriminated against?

Forty years ago a shipper known to this writer called to the attention of a railway agent a rate discrimination against a certain commodity (a discrimination, incidentally, which was entirely justifiable under the "value of service" theory under conditions then prevailing). The agent's reply was: "Well, what are you going to do about it?" And the shipper replied: "I am going to fight you as long as I live." And he did—for 30 years, until his death 10 years ago.

There is such a thing as making a virtue of necessity. The railroads have got to make adjustments in their rates in any event, to meet the realities of the competition they face. In so doing, they can regain not only much of the traffic volume they have lost—but they will have a rate basis which can be defended in cost terms, which are far easier to "sell" to the average shipper than the discrimination (legitimate though it was) which marked the period of the absence of price competition in transportation.



The M. & St. L. Is Now a Modern, Well-Built Railroad

The "Doctors" Were Wrong

Minneapolis & St. Louis, pronounced hopeless by experts, gives evidence of vigorous life

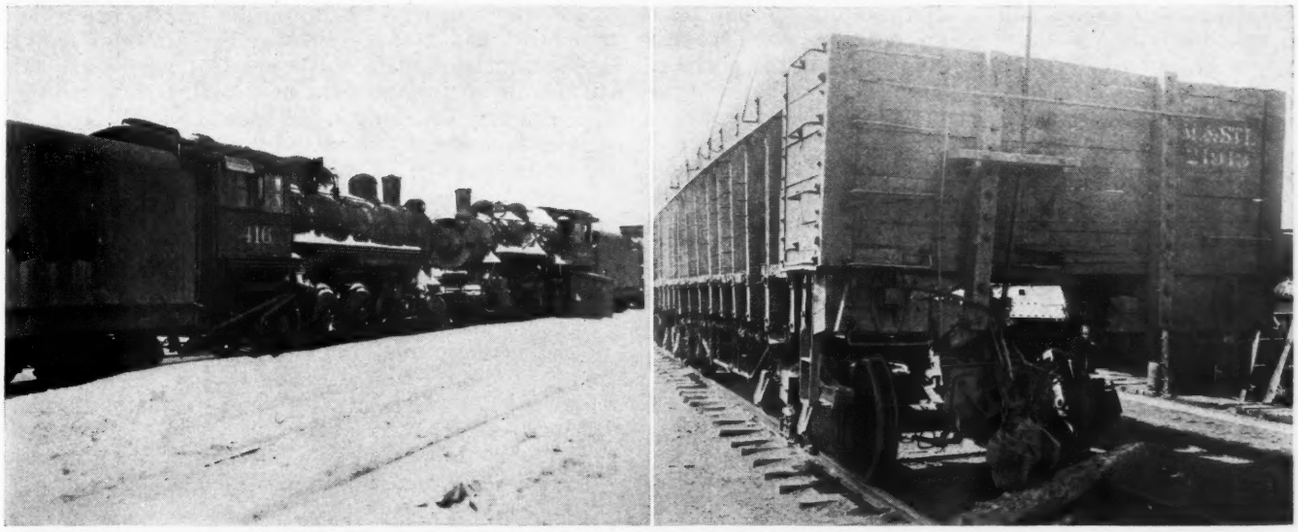
ON December 31, 1934, the Minneapolis & St. Louis was in apparently hopeless shape, financially and physically. This 1,500-mile line had been pronounced to be in a dying condition by several transportation authorities and was about to be partitioned among various other lines in the same territory.

If ever a railroad presented a dismal outlook for the future, it was the M. & St. L. on December 31, 1934. On that date, cash on hand in banks amounted to $103,504. Vouchers on hand awaiting payment amounted to $217,641, while $1,185,000 in receiver's certificates were outstanding. The physical condition of the property and the rolling stock matched its extremely weak financial condition.

After five years an entirely different picture presents itself. On November 14, 1939, for example, cash on hand in banks in excess of outstanding paper amounted to $757,424. Vouchers on hand awaiting payment were only $53,848 and the balance of receiver's certificates outstanding were all paid off late in November, 1939, this latter item alone accounting for more than a million dollars betterment in the railway's financial condition. Meanwhile, in the five years, 13 million dollars had been expended on the property, *out of earnings*. Locomotives and cars were in good shape to run and the right of way was vastly improved. The general offices were moved to a modern building in the heart of town. All equipment trust obligations were being met promptly on maturity and cash discounts amounting to an average of $10,000 annually were being taken as offered on the purchase of materials and supplies. Despite a long-continued drought in the territory served by the railway, revenue loadings are up about 25,000 cars since 1935 and despite a winter in which the most severe snow and blizzard conditions in history were experienced in M. & St. L. territory, the operating ratios reflected clearly that the railway was being run efficiently.

This outstanding feat has been accomplished by a realistic approach to the pressing problems—of which there were many; by a readiness to depart from precedent, where precedent required illogical and cumbersome action in achieving a desired end; and by a willingness to spend money in places where it would bring returns.

Above all, it was accomplished by inspired leadership, backed by wholehearted teamwork. One thing the transportation experts failed to reckon with, as they analyzed the unfortunate line from a statistical viewpoint, was the human element, imponderable but extremely valuable. There was of course, among the officers and men, a



Decrepit Rolling Stock Such as This Has Now Disappeared from the M. & St. L.

natural desire to retain the jobs to which most of them had devoted a lifetime, but there was also a loyalty to the railroad and a pride in its accomplishments that carried the line over many rough spots.

This store of loyalty and of valuable knowledge of local conditions was capitalized upon by L. C. Sprague when he took executive command of the road as president and receiver on January 1, 1935. Instead of indulging in the "housecleaning" which has accompanied many changes in managements, he took advantage of the capabilities of the local talent that had been latent before only because of lack of opportunity. The local staff, in practically every instance, more than justified the faith bestowed upon it by the new president.

The Physical Property

The M. & St. L. main line extends between Minneapolis and Peoria, 485 miles. A secondary main line between Oskaloosa, Iowa, and Albia, 23 miles, gives a connection with the Wabash for through Minneapolis-St. Louis service. Des Moines is reached from Peoria via a line between Oskaloosa and Tracy and trackage rights over the Chicago, Burlington & Quincy. It is reached also from Minneapolis via Albert Lea and Fort Dodge, trackage rights over the Illinois Central to Tara, and the M. & St. L. to Des Moines. This line also gives Minneapolis-Omaha service via Fort Dodge and the I. C. Another secondary main line extends from Minneapolis to Watertown, S. D., 223 miles, with additional mileage in South Dakota of 217 miles, consisting of the lines between Watertown and Akaska, and between Conde and Leola, via Aberdeen. The total mileage, including numerous branches, is just over 1,500 miles.

When the present receiver took over the management of the property it was on the verge of collapse, as described elsewhere in this article, but by immediate emergency measures, by overlooking no opportunities for economies while, at the same time, not hesitating to spend money in order to make money, great improvement has been made. The results of this policy are indicated in the receiver's account for the year ended December 31, 1939, as compared with the year 1934. The operations in 1934 resulted in a net loss of $41,604, as compared with a net income of $981,562 in 1939, and the operating ratio was 90.75, as compared with 76.99.

The total operating revenues in 1939 were $9,215,137, as compared with $7,514,180, or an increase of $1,700,957, but the operating expenses for handling this increased volume of traffic were only $7,094,652 in 1939, as compared with $6,819,399 in 1934, an increase of only $275,253. This increase was largely attributable to maintenance of way and traffic expenses, the transportation costs showing a decrease of $326,467 for handling the larger traffic, as a result of increased operating efficiency.

The difference in results obtained is further indicated in the following statement, particularly with reference to the difference in the percentage of gross income reduced to net income:

PERIOD JULY 27, 1923, TO DECEMBER 31, 1934, INCLUSIVE
(11 years, 5 months)

Gross revenue	$142,022,471.34
Net railway operating income	3,438,588.37
Net income	1,620,154.04
Average per year—gross revenue	12,439,924.50
Average per year—net railway operating income	301,190.22
Average per year—net income	141,911.30
Per cent of gross revenue reduced to net railway operating income	2.42
Per cent of gross revenue reduced to net income	1.14

PERIOD JANUARY 1, 1935, TO DECEMBER 31, 1939, INCLUSIVE
(5 years)

Gross revenue	$43,521,150.26
Net railway operating income	3,060,773.85
Net income	2,840,078.51
Average per year—gross revenue	8,704,230.05
Average per year—net railway operating income	612,154.77
Average per year—net income	568,015.70
Per cent of gross revenue reduced to net railway operating income	7.03
Per cent of gross revenue reduced to net income	6.53

How to Meet a Pay Roll

When the new president arrived, the financial condition of the road was such that there were grave doubts as to whether the next pay roll could be met. "The M. & St. L. is only good for junk," was the consensus of opinion and the president took this advice literally, although not quite in the meaning originally intended. The railroad was littered with junk, including a large amount of rolling stock that had not turned a wheel in years. The condition of some of this equipment is shown in the accompanying illustrations, and all of it was manifestly unfit for further service. It had not been retired because of a vast amount of red tape from accounting and statistical standpoints, although, because of its physical condition, it should have been scrapped years before.

The new management was far less concerned with presenting an attractive statistical picture than with

keeping the railroad running and meeting the pay roll. Accordingly, it cut the mass of red tape and engaged upon an immediate scrapping program for the purpose of obtaining the cash necessary principally to pay vouchers on hand awaiting payment which covered material and supply purchases made largely during the latter part of 1934. The details of the solution of the equipment problem are given later, but the extent of the dismantlement program is indicated by the fact that 75 locomotives and 2,887 cars of various types have been scrapped. The money thus obtained permitted the continued operation of the railway on a much more efficient basis until the results of increased sales activity began to be felt.

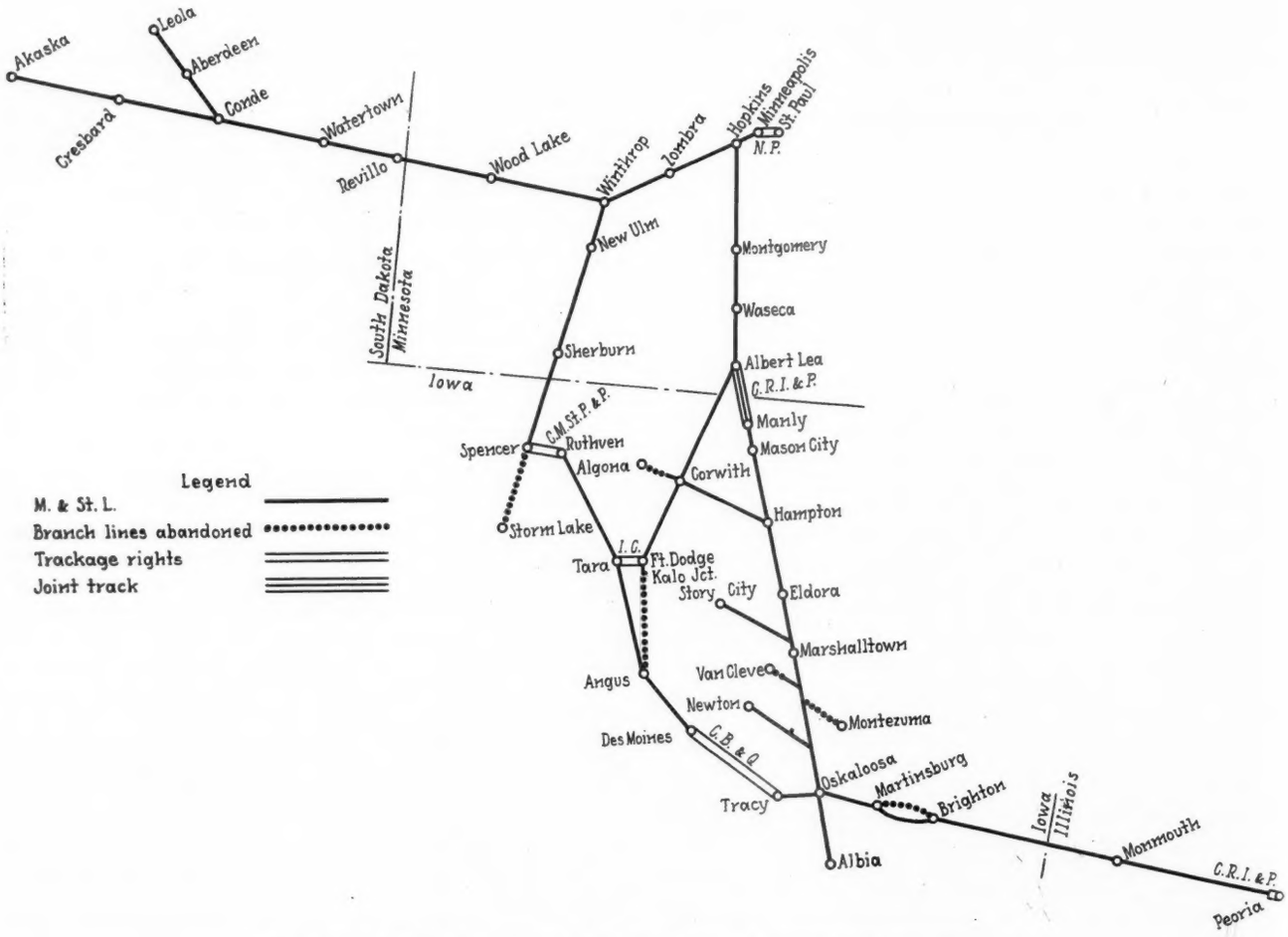
Spending Money to Make Money

The M. & St. L. does not subscribe to the theory that the proper procedure in times of depression is to cut the sales staff to the bone. One of the first actions of the new management was to open up outside agencies at Boston, Mass.; Winston-Salem, N. C.; Philadelphia, Pa.; Dallas, Tex.; Portland, Ore.; and Omaha, Nebr., while traffic solicitors were added to existing agencies at 12 other points. On January 1, 1935, the sales staff of the M. & St. L. consisted of 29 traffic solicitors throughout the country; it includes 71 traffic solicitors today. The effect of bolstering up the outside agencies and providing an adequate sales staff was indicated by the fact that more than half of the more than 10,000 additional cars of revenue freight secured in 1935, as compared with 1934, consisted of bridge traffic on which the M. & St. L. was the intermediate carrier.

Moreover, the M. & St. L. solicitors give a real service to shippers and receivers, in that they are endeavoring to assist such companies as cannot afford to maintain nation-wide organizations, in any way they can, and they are frequently called upon for such services. The new president found that the majority of the traffic solicitors had never seen the railway, or at least had not seen it for several years. Accordingly, in 1937, after the rebuilding was well under way, they were called in from all over the country for a meeting with the general traffic manager and a two-day trip over the railway by special train. This procedure was repeated late in 1939, with the result that all the men at the outside agencies now know what they are selling and can speak intelligently regarding the various sections of their railway. Additional benefits from these trips are gathered from the much closer acquaintanceship they give to the solicitors in different cities who are working toward a common end—to get more freight for the M. & St. L.

The traffic department of the M. & St. L. is also looking to the future, in that every employee who enters the service of the general traffic department in Minneapolis, as office boy, stenographer, rate clerk or in other capacity, is hired with a view to his potential ability as a salesman. Several of these men hired four or five years ago are now justifying this policy by serving as successful junior traffic solicitors.

An industrial agent has also been added to the traffic department and several hundred new industries have been located along the line, including a large number of bulk oil storage plants, lumber and coal yards, beer distributing houses and coal yards, as well as some small manufacturing plants. All of these produce revenue from



Map of the M. & St. L. Showing Through Routes and Branch Line Abandonments

Locomotives that Had Not Turned a Wheel in Years Were Disposed of

leases and from inbound and outbound traffic. The industrial agent has also played a major part in reviving several industries along the line that had become dormant during the depression. No traffic-producing opportunity is overlooked. For example, an automobile-loading ramp and platform in Cedar Lake yard in Minneapolis, which was constructed four years ago from bridge timbers taken from an abandoned branch line, has so far produced more than 4,000 carloads of automobile traffic for the M. & St. L.

There is far less departmentalization on the M. & St. L. than on most railways. The general traffic manager, for example, has had a very wide experience. He is a former conductor and a member of the O. R. C., and, in line with the prevailing policy of putting all cards on the table, he makes an effort to explain to the various brotherhood representatives, whenever he can, the traffic prospects and potentialities. Also, everyone on the railway is a traffic solicitor, regardless of what his other duties may be, and this applies to the president as well, who, through his wide acquaintanceship, and through aggressive contact with potential shippers, has been responsible for securing routing orders on much traffic.

This enlightened and co-operative sales policy has produced results. Prior to 1935, the traffic had been sliding precipitously downward, but that trend has been sharply reversed under the new management. In the last five years, despite drought conditions and governmental meddling with the shipping of farm products, the M. & St. L. has steadily increased its traffic, the cumulative increase in that period representing more than 25,000 cars.

Money in Scrap

The dismantlement program for rolling stock in large measure produced the money necessary to purchase new equipment. This involved scrapping 84 locomotives, 48 passenger cars and 3,116 freight cars, including 1,181 box cars, 763 coal cars, 568 stock cars, 15 flat cars, 67 refrigerator cars and 245 cabooses and work cars.

For some years the M. & St. L. had maintained a scrap dock at Marshalltown, Iowa, where scrap was accumulated, sorted and held for market prices. Under more fortunate conditions, this system might have been continued, but the road was without credit and in desperate need of funds, so that immediate returns were a prime consideration. This dock was, therefore, abandoned and the scrap sold through local dealers, thus costing $1.43 per ton less for handling. In addition, the outbound traffic from such scrap dealers has represented an important source of revenue.

Another source of scrap was from the abandonment of branch lines. In 1935, the M. & St. L. was burdened with operations on a number of lines where revenues had dropped to almost nothing. The new president began an immediate campaign to secure the abandonment of several such branches, in Iowa, with the following results:

	Mileage	Year Abandoned
St. Benedict—Algona	8.1	1936
Spencer—Storm Lake	36.9	1936
Otho—Berkeley	35.9	1936
G. & M. Junction—Montezuma	13.6	1936
Kalo Junction—Otho	3.3	1937
Berkeley—Angus	4.8	1938
Laurel—Van Cleve	6.7	1939
	109.3 miles	

The Spencer-Storm Lake abandonment includes the 13.2-mile line between Rembrandt and Storm Lake which was sold to the C., M., St. P. & P.

New Cars for Old

Part of the money obtained from the sale of scrap was applied on the purchase of 65 new gondolas and 10 new automobile cars, which represented an immediate need. Since then, the M. & St. L. has acquired a number of second-hand cars which have been rebuilt and put into Class I condition at its Marshalltown shops. These were purchased on a long term financing plan which results in an average payment of less than the per diem charge of a dollar a day per car. They include 637 new box cars and 250 new gondolas, on which the average payment per day ranges from 50 to 85 cents.

This brings to light some interesting figures as to the financing of the purchase of this equipment. For example, the lot of 150 box cars purchased on July 1, 1937, cost a principal sum of $172,572; with interest charges that will amount to $10,534 before payment is completed, this brings the total cost to $183,106, or an average of $1,220 per car. They are to be paid for in 1,436 days, or at a rate of payment of 85 cents per day. However, to October 31, 1939, these cars had earned $66,423 in per diem, or an average of 52 cents per day, leaving the M. & St. L. to pay only 33 cents a day for the use of Class I box cars.

It was costing the M. & St. L. $7,041 per year to supply wet engine sand to its locomotives from several sandhouses at various places along the line. By building eight sand cars to supply dry sand instead, it was possible to retire the sandhouses at Cedar Lake, Iowa, Marshalltown, Oskaloosa and Fort Dodge, and at Albert Lea, Minn., and Monmouth, Ill.

The total cost of dry sand is $2,676 per year, to which is added maintenance and depreciation on the eight sand cars of $605 per year, or a total cost of $3,281, as compared with $7,041 for the former method. This represents a saving of $3,759 annually in sanding engines, or a return of 34.2 per cent a year on the investment of $10,993 for the sand cars.

Engines that Really Run

Apart from the 75 locomotives that were scrapped, the general condition of motive power on the M. & St. L. five years ago was bad. The largest locomotives had a tractive effort of only 46,000 lb., and engine failures had been averaging well over 40 annually. In the last three years, failures have averaged less than 25 annually, and much more tonnage is being handled with fewer train miles. This was accomplished by rebuilding 82 locomotives since 1935 and increasing tractive effort of 35 engines from 46,000 to 62,000 lb. by the installation of boosters, syphons, stokers, disc wheels, solid rods, mechanical lubricators, improved superheater units, feedwater heaters and other improvements. Among other things, this has resulted in a reduction of $417,842 in freight train fuel costs in the four years from 1935 to 1938 inclusive, as compared with the preceding four years and the figures for 1939 show still further improvement.

At the same time, the capacity of the tenders was increased and auxiliary water cars are operated in some cases. Better power and increased water capacity have enabled freight locomotives to operate through between Minneapolis and Marshalltown and between Marshalltown and Peoria, thus permitting the concentration of locomotive repairs at the Marshalltown and Minneapolis shops. Outlying enginehouses are now used as service stations only, and this concentration of repairs has so far saved over $300,000 for the railway in freight and passenger enginehouse expenses.

Yard operations have been materially improved by the purchase, in 1938 and 1939, of five Electro-Motive and two American Locomotive Diesel-electric switchers, which are used in 24 hr. service. These are located in the yards at Marshalltown, Oskaloosa, Bartlett, Albert Lea and three in Minneapolis.

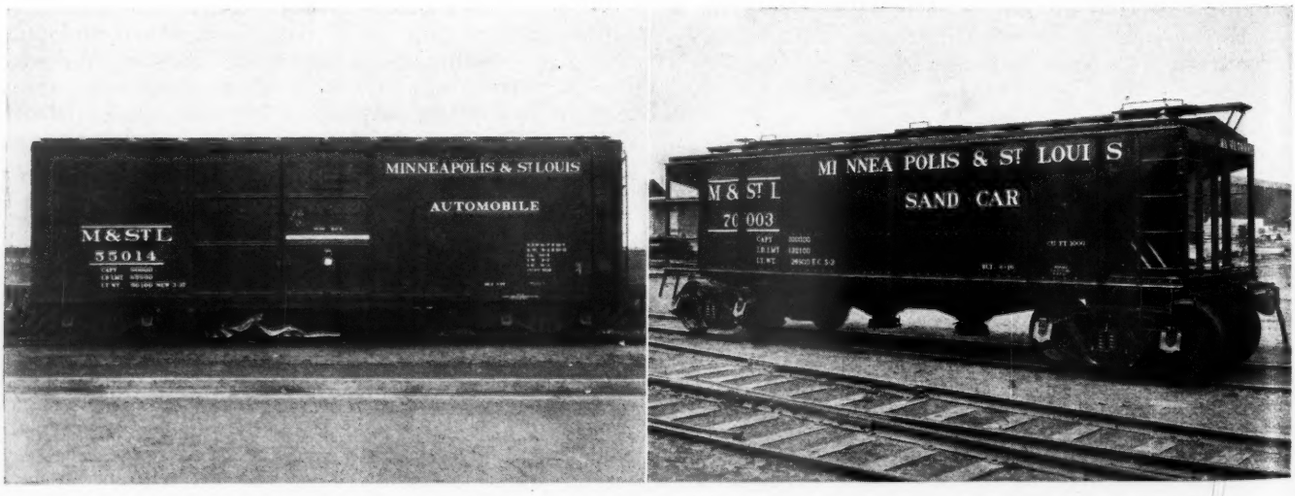
No Makeshift Maintenance

A considerable part of the $13,000,000 taken from earnings for the improvement of the property has gone into maintenance of way. Here, too, the policy has been to do a thorough job which would result in a reduction in maintenance expenses. As cash could be allocated for rehabilitating the line, definite programs designed to correct bad conditions once and for all were worked out. Instead of trying to spread inadequate sums over the entire line, the money was so allocated as to provide permanent correction of specific conditions. The worst spots were corrected first and then, as more money became available, other reconstruction and rehabilitation work was undertaken.

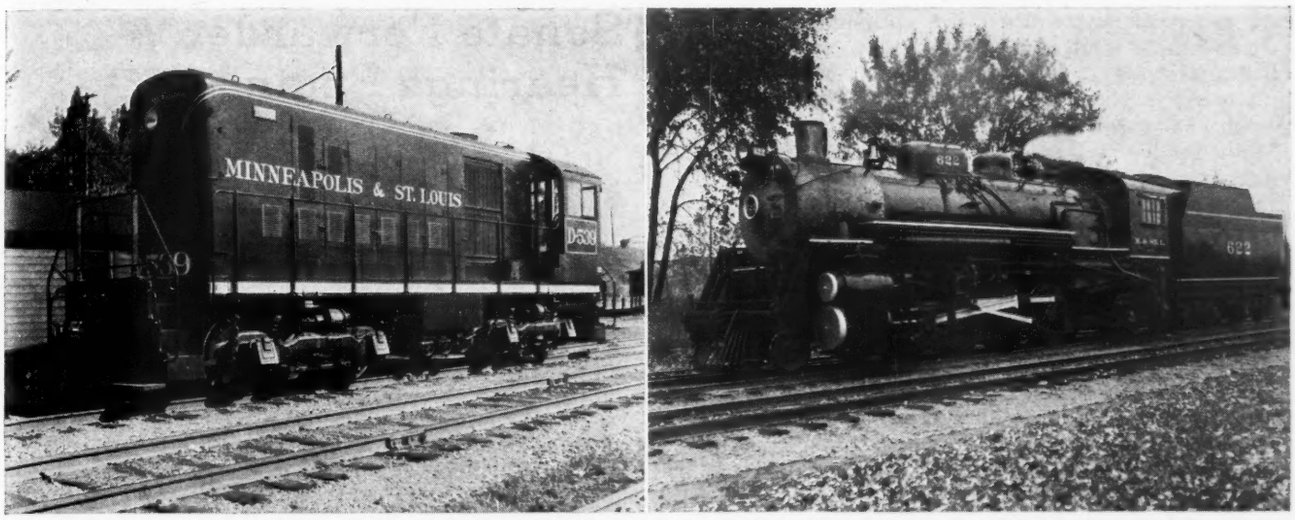
The results of five years of such careful planning are apparent. Starting with the worst places, gravel ballast was applied, with track lifts wherever necessary. Where bad drainage conditions existed, subdrainage has been installed in the form of perforated corrugated iron pipe, with lateral connections, to stop slides which were formerly prevalent in certain districts. In all, more than 130 miles of gravel ballast and 60 miles of cinder ballast have been installed since 1935. The 1940 program calls for an additional 100 miles of gravel ballast.

An entirely new tie program was evolved. Formerly, ties for the M. & St. L. were purchased from an off-line producer, requiring the payment of freight charges for a haul of several hundred miles. The territory traversed by the M. & St. L. in Iowa has numerous stands of oak, entirely suitable for ties. Arrangements were made with a tie producer to send portable tie-cutting outfits to various points along the line where the timber was available. This not only eliminated the freight charges from the final cost per tie, but has also resulted in much additional revenue to the M. & St. L. from the shipment of by-products, such, for example as the oak residue after the ties have been cut, for which there is a steady demand on the part of bakers in large cities who use it as firewood for their ovens.

As a result of this reduction in the cost per tie, it is possible to install many more ties for the same amount of money, and oak ties equipped with S-irons have now been laid on the entire main line between Peoria and Minneapolis. Between 40 and 50 per cent of these ties are treated. On secondary and branch lines, cedar ties have been laid on tangents, with oak ties on the curves.



New Equipment Financed Largely from the Sale of Scrap, Including One of the Sand Cars that Have Resulted in Large Savings



Diesel-Electric Switchers and Modern Road Power Characterize the M. & St. L.

The tie problem has now been solved to such an extent that the plans for 1940 call for renewals only, rather than for rehabilitation as was necessary in previous years. Practically all of the 328,000 ties that will be installed in 1940 are now on the railroad and paid for ready for the spring program. Of these, 167,000 are oak ties, and 161,000 are cedar ties for secondary and branch line tangents.

The battered, sun-kinked rail of five years ago has been replaced by new or relay 90 and 100-lb. rail in many cases, and a continuing program of building up battered rail ends has been going on for the past five years. This is done under contract with outside welders, and the 123 miles so rebuilt in 1938 and 1939 brings practically all of the main track into good condition. New joint bars have been installed on most of the main line, and the bars in good condition so replaced were salvaged and shipped elsewhere to replace broken bars. A program of installing rail anti-creepers has also been completed in the last five years.

Cleaning Up the Right-of-Way

Five years ago, the M. & St. L. was cluttered with scrap and full of ramshackle, unsightly and unnecessary buildings. The scrap has all been picked up and sold at the current high prices, and hundreds of shacks and buildings have been torn down. The accumulation of forgotten materials and supplies found in these old buildings and in the half-car bodies set alongside the track was startling, and represented a considerable sum of money. Materials and supplies were so hard to get prior to 1935 that it had become the habit of supervisors to send in requisitions for more than they actually needed, so that, when these requisitions were cut down in the general offices as they usually were, they still would have enough materials to get by on. When, as occasionally happened, the requisitions were filled as sent in, the material not immediately needed was cached in these buildings and shacks, for possible future use, and, in some cases, completely forgotten. Such salvage and the resulting scrap produced more than enough money to pay for the removal of the buildings and for rehabilitation of other buildings that served a useful purpose. The right-of-way was also cluttered with far too many stock pens, all in more or less disrepair. Many of these were removed and those remaining were rebuilt and put in good repair.

The remaining buildings have been painted and over-hauled on the entire main line between Minneapolis and Peoria, and the secondary main lines between Albert Lea and Des Moines, and between Minneapolis and Watertown. The paint gangs operate with a highway tractor and trailer, with space for tools and an air compressor, as well as living quarters, and, through the provision of such increased mobility, they now accomplish far more than under the former practice of waiting for trains to take them to work.

The enginehouses at Oskaloosa, Iowa, and Marshalltown, and at Monmouth, Ill., were rebuilt and modernized. The improvement in motive power permitted revised and more efficient operating conditions, and lessened the number of stalls required. Similarly, as already described, the operation of sand cars permitted the removal of nine sandhouses at various points on the railway. The coal docks that were formerly scattered at many points along the line have practically all been removed, and this expensive operation has been superseded by coaling at a lesser number of mechanical coal chutes.

The M. & St. L. traverses a part of the country that is subjected to severe winters and heavy snows. Since 1935, two new Russell snowplows have been purchased and used effectively in removing snow at less cost and much more expeditiously. At the same time, an off-track Caterpillar tractor shovel has been kept constantly at work widening cuts at various points on the railroad, thus preventing drifts and eliminating the necessity for heavy, emergency snow removal work in many cases.

For 22 miles between Martinsburg, Iowa, and Brighton, the M. & St. L. paralleled a light traffic branch line of another railroad, and arrangements had been consummated for the purchase of this line in 1934, but no work had been done in effecting the change-over. The work involved was considerable, in view of the fact that the line thus acquired had no ballast and its rail was too light for the main line power of the M. & St. L. Work was begun on rebuilding the branch to serve as the main line in 1935, and involved ballasting the entire line, replacing every tie, and renewing all rail. It also involved strengthening with timber bents a weak deck girder bridge near Brighton, Iowa, as a temporary measure. This bridge, which is 350 ft. long and 58 ft. above the stream level, is being replaced by a fill, the water flow being taken care of by two 120 in. culverts, 190 ft. long.

In relocating the line, it was also necessary to relocate a water station. This station was moved to a point on the new line where it permits locomotives to start

trains from it in both directions without difficulty. The water supply is obtained from a reservoir near the old line and piped to the new location. Since the old line traversed much rougher country, a material saving in operations has been affected by the transfer. Several heavy grades and reverse curves are avoided, and the new line has 37 fewer bridges to be maintained.

Signals Installed

The M. & St. L. as part owner operates over joint track, in connection with the Chicago, Rock Island & Pacific, between Manly, Iowa, and Albert Lea, Minn., and the Illinois Central uses the same tracks for seven miles south of Albert Lea. In 1938, a C. T. C. installation was put in on this territory and it has been very effective in increasing the capacity of the line and reducing operating expenses. The M. & St. L. formerly had only wooden crossing signs at highways, but since 1935, many bell and flasher type warning signals have been installed, 43 of which were placed in service in Iowa alone in 1939. A number of former mechanical interlocking plants have also been replaced by automatic interlockers. Reflector type lamps have been installed in all switch stands, in place of the former oil lamps, and this one item alone is responsible for a saving of $18,000 a year.

Saving by Spending

The instances of saving by spending and by close attention to detail might be multiplied almost indefinitely in each department. For example, the purchase of modern business machines permitted the establishment of a centralized station accounting system in the comptroller's office—for a saving of $20,523 annually.

The decrease in transportation costs is due in no small part to the better supervision made possible by centering the operating department in Minneapolis, instead of having it scattered at other points, including Fort Dodge and Oskaloosa. The saving brought about by this centralization has permitted the employment of two more trainmasters than there were previously. Under the new plan, the maintenance of way, motive power, stores and purchasing departments report directly to the general manager, as does the general superintendent who is in immediate charge of transportation.

By the use of buses instead of trains for the transportation of passengers between the Peoria passenger station and the freight yards from which passenger trains are now operated, the M. & St. L. saves $30,000 annually in trackage rentals and picks up and delivers passengers at a more convenient place. Application is now before various commissions for the operation of a rail-highway co-ordinated service for l. c. l. freight, which will give better service and attract traffic while reducing expenses.

Of invaluable assistance, however, and the factor that has played a major part in the healthy revival of this apparently dead railroad, has been the confidence inspired by the frankness with which the new management has approached all its problems.

STRICT CO-ORDINATION of land transportation and division of functions to the agency best able to carry them on are embodied in a recent decree of the government of Portuguese East Africa, according to reports of the American Consulate. It is stated in the introduction to the new law that railroads are to be considered the basic means of transportation, with the highway system complementary thereto, and that there should be no duplication of services.

Senate Forwarder Hearings Begin

WASHINGTON, D. C.

Pooling of all railroad less-than-carload traffic for handling by railroad-owned or railroad-controlled merchandise-freight agencies operating in each region was advocated by Thomas P. Healy, general solicitor of the New York Central, in his June 5 testimony before the sub-committee of the Senate committee on interstate commerce which on that day opened its hearings on S. 3665 and S. 3666, the pending forwarder regulation bills, and on Senate Resolution 146 wherein the Senate called for an investigation of railroad methods of handling l. c. l., forwarder and express traffic. Mr. Healy said that, although "they're not going to," the Eastern roads should tell the committee that they are prepared to form such an agency in order to correct the present situation involving duplication of services as between forwarder and railroad l. c. l. operations.

Senator Reed, Republican of Kansas, was in the chair as the hearing opened; and he was joined later in the session by Chairman Wheeler of the committee on interstate commerce and of the sub-committee. The third member of the sub-committee is Senator Hill, Democrat of Alabama. Prior to the appearance of Mr. Healy, A. V. Vallandingham, chief accountant, Bureau of Statistics, Interstate Commerce Commission, and C. G. Jensen of the Bureau of Traffic, offered statistical and tariff testimony.

A. A. R. Not Participating

Following Mr. Jensen's presentation Senator Reed called for appearances on behalf of the Association of American Railroads; and when he got no response he said "for the record" that the A. A. R. had been so much interested in the proceeding last year that he had agreed to meet a committee representing the Association, but now as the hearings open, as the A. A. R. knew they would, the Association is not represented. Also, the Senator said that he had asked of the A. A. R. a "certain policy" with respect to the proceeding, which was refused. Later in the session, Judge R. V. Fletcher, vice-president and general counsel of the A. A. R., came forward to explain the Association's position.

It has been Judge Fletcher's understanding that in proceedings before Congressional committees no one enters an appearance unless he desires to offer testimony; and it had been decided that this was a matter on which the railroads should speak individually or through their regional organizations. This decision, the A. A. R. general counsel went on, was due to the complexities of the questions involved and to the differences of opinion among the railroads. He added that the A. A. R. does not appear on matters where it can't express the view of practically all the railroads. However, Judge Fletcher pointed out that the A. A. R. was interested to the extent of having representatives at the hearing, and it stood ready to give the committee any information which it had and which the committee thought might be helpful.

Here Senator Reed said something to the effect that the difficulty appeared to lie in the disposition of member roads of the A. A. R. to view the railroad problem from the standpoint of the individual roads. Nevertheless he was "astonished" to find that the A. A. R. was not represented on a matter which was of general interest to the industry. Whereupon Judge Fletcher replied: "We're here; we're represented; and we desire to co-operate." He then called A. F. Cleveland, vice-president of the A. A. R. in charge of the Traffic Department, who

answered a couple of tariff questions from Senator Reed.

Meanwhile the aforementioned witnesses had offered their presentations—Mr. Vallandingham leading off with his statistical evidence. He presented a series of statements, bound in two volumes of 127 and 219 mimeographed sheets; they comprised compilations of data gathered by the commission in response to its orders of September 15 and 25 and October 4, 1939, directing all Class I roads to furnish information as to l. c. l. shipments and freight-forwarder carload shipments handled by them during the week ended October 7, 1939. Among other citations from his exhibits, Mr. Vallandingham called attention to the fact that during the test week the average peddler car carried a load of 1.45 tons a distance of 130 miles, the average package car carried a load of six tons a distance of 560 miles, the average l. c. l. car (package and peddler cars combined) carried a load of 5.47 tons a distance of 476 miles, and the average forwarder car carried a load of 12 tons a distance of 844 miles; and that l. c. l. shipments were transferred from one car to another an average of 1.14 times en route.

Also, Mr. Vallandingham pointed out that the preponderance of forwarder traffic is in the Eastern district which reported 64 per cent of the tons forwarded, 51 per cent of the ton-miles, 67 per cent of the cars forwarded and 55 per cent of the loaded car-miles. The Western district reported 33 per cent of the tons, 46 per cent of the ton-miles, 29 per cent of the cars forwarded and 42 per cent of the loaded car-miles.

Tariff Rules Aid Forwarders

Mr. Jensen's statement outlined the development of various tariff rules and practices which have facilitated the operations of the forwarder. He thought "it is probably a fair statement that the forwarding business is dependent upon the maintenance by the railroads of tariff rules authorizing the application of carload rates on mixed carloads of different articles." He then proceeded to outline how the mixing rules have been liberalized and how the "all-freight" rate has come into use. Also, to explain such other practices as those whereby forwarders avail themselves, "on paper," of the stop-in-transit privilege and thereby obtain carload rates on service to theoretical "stop-off" points without the observance of any carload minimum weight. Mr. Jensen's statement included specific examples of how shippers could obtain substantially reduced rates by turning their business over to forwarders even though the service performed by the railroad is identical with what would have been performed on shipments tendered to them direct.

One such example was set up by Mr. Jensen as follows: "A shipper at Chicago may wish to ship 15,000 lb. of machinery to the Pacific Coast. The carload rate, which applies on machinery and certain allied articles, in either straight or mixed carloads, is approximately $1.75 per hundredweight, minimum 40,000 lb. The less-than-carload rate is about $4.25 per hundredweight. If the shipment were forwarded directly by the owner the freight charges would be $637.50—the less-than-carload rate applied to the actual weight. But instead, after loading the car, the owner orders it switched to the depot of a forwarding company in Chicago, paying perhaps $15 for that service. The forwarding company may have ready for shipment to the same destination on the coast a carload of machinery, the car being fully loaded but weighing only 35,000 lb. If that car were shipped separately the freight charges would be $700—$1.75 per hundredweight applied to the minimum weight of 40,000 lb. The forwarding company, however, without even disturbing the lading of the 15,000-lb. car, can take out one bill of lading for both cars, endorsing on it that the 15,000-lb. car is a follow-lot of the 35,000-lb. car, and as a result under the tariffs freight charges are assessed at the carload rate applied to the actual weight in both cars, or a total of $875. Here again the service performed by the railroad is identical in both cases, but because the cars go forward on one bill of lading instead of two the freight charges are reduced by $462.50."

In response to questions from Senator Reed, Mr. Jensen stated that forwarders do not carry all traffic, but adhere chiefly to the higher class business. In the same connection the Senator asked the witness to examine a batch of forwarder tariffs and return later for testimony with respect to the often-heard charge that forwarders are "pickers-and-choosers," taking the cream of the traffic and leaving the skim milk for the railroad l.c.l. service.

Testimony of T. P. Healy

General Solicitor Healy of the New York Central told Senator Reed that his road was the largest handler of forwarder traffic and that its financial interest in the Universal Carloading & Distributing Company was trusteed with former Interstate Commerce Commissioner B. H. Meyer. He offered for the record the trustee agreement under which Mr. Meyer functions. Before getting into his own prepared statement, Mr. Healy appraised the Jensen presentation as one which left "a very biased picture" of the benefits which the railroads have received from forwarder operations.

As he saw the situation himself, Mr. Healy went on, the forwarders have taken off the railroads business that didn't belong there and off the highways business that didn't belong there—"in short they have accomplished co-ordination." Mr. Healy conceded that forwarders solicit traffic out of which they hope to make a profit, but he went on to cite statistics which he interpreted as indicating that from the railroad standpoint the forwarder traffic made a "better showing" than railroad l.c.l. Asked by Chairman Wheeler why the railroads couldn't give the same service as the forwarders, Mr. Healy replied that they could by co-operation between themselves and co-ordination with trucks. The New York Central general solicitor followed through with his aforementioned advocacy of merchandise agencies operating in each region.

The present situation, he said, must be considered a "transition stage" out of which must come some form of l.c.l. pooling for handling by railroad-controlled agencies with the railroads retiring from l.c.l. business. In Mr. Healy's opinion the merchandise agencies should have common-carrier status like the Railway Express Agency, although "for the time being" they should be separate from R.E.A. Also, "for the time being," the agency operating in each region should be separate. Moreover, Mr. Healy went on, the owning railroads should control the agency's rates in order to protect their own carload rate structure. With respect to the present forwarders, Mr. Healy suggested that they might form the nuclei of the agencies he has in mind—provided they could be acquired on satisfactory terms. Meanwhile he would give "Washington-Agreement" dismissal compensation to railroad l.c.l. employees who were laid off as a result of the arrangement.

INCREASED RAILROAD SHIPMENTS of Nova Scotia coal to Central Canada may be in the offing, according to a recent statement by the Dominion Coal Administrator. It is pointed out that because of the war, coal-carrying ships available for the transportation of fuel from Cape Breton to Upper Canada via the St. Lawrence are being diverted into other activities and if the traffic is to be handled it must be handled by rail.

Systematic Check Cuts Freight Car Detention

How an effective, quick-action plan for preventing delays is carried out in Frisco Lines' terminals

By H. W. Johnson

Car Accountant, St. Louis-San Francisco

BECAUSE of the importance of maintaining the greatest possible efficiency in connection with freight car handling locally within terminals, that subject has been given special study by the Frisco in recent years. The matter, we believe, is deserving of such attention because of its direct relation to the conservation of available car supply, prompt service to patrons and a minimum per diem expense; also, it has an indirect bearing on capital expenditures for the maintenance of an adequate quota of freight car equipment. Furthermore its importance is specially spotlighted under present conditions of increased demand for and diminished ownership of first-class cars.

A survey of methods on various neighboring lines as well as on our own railroad indicated possibilities for improvements, particularly in the matter of bringing promptly to the attention of local supervisory forces specific instances of car delays. It was thought that improved car handling would automatically follow upon the installation of better control methods coupled with a follow-up whereby general officers would be furnished with pertinent current information to enable them to determine whether excessive or avoidable detention was being incurred. Previously supervision had been dependent too much on complaints from patrons as to movement of loaded cars and from the general office as to empties. The latter were usually based upon general-office records, and were made without prior information as to causes or justification for delays. Perfunctory investigations made "post mortem" were neither accurate nor effective; while such supervision as was accorded through checks made by traveling forces was comparatively expensive, requiring considerable time for proper coverage.

System of Detention Reports Developed

We sought to improve the effectiveness of supervision by the adoption of a system of car detention reports and notification slips designed automatically to bring to the attention of local supervisory forces each avoidable and unjustifiable delay at its beginning and in sufficient time to avoid further detention; also, to tie this in with an adequate follow-up system from the general-office standpoint. Since a large percentage of industrial and terminal car handling occurs at the principal stations and terminals it was decided that the ground could be largely covered by appropriate attention to those points at which regular switching crews were employed.

The matter of car-efficiency control does not lend itself readily to cost accounting or performance statistics; it is impractical to make a direct charge covering per diem expense against the operating unit concerned. The field of operation being geographically scattered, switching services are difficult to supervise effectively. Involved local conditions also make it difficult to isolate responsibility for failures and delays. Furthermore, there are factors opposing an efficient job of car handling from the per diem standpoint, including the urge to save costs of switching power and crews unduly, the convenience accruing to local forces through the practice of accumulating at industries empty cars in excess of requirements, or storing cars at points within the terminal; also, the influence of the self-preservation motive on reports designed to place responsibility for detention.

Many examples were encountered of the disposition of local forces to avoid making proper assignment of the various causes of detention, such as charges to patrons under demurrage rules, improperly assuming that cars were constructively placed, cars carded for forwarding in trains but not lined up for movement, etc. Difficulties in this connection were characteristic of the "post mortem" method of investigation. Now, the detailed reports, complete instructions and field checks have very largely eliminated these obstacles.

The report system was designed, first, to bring out detention denoting delays in switching service covering not only industrial switching but all movements within the terminal; and, secondly, to provide for an analysis of detention of cars remaining within the terminal an unusual length of time. In the latter connection the aim was to account for all detentions, classifying them as to causes and segregating them according to the responsibilities of the various departments and interests concerned, i. e., yard engine movement, road train service, accumulation of empty car supply, repairs, handling company materials, loading, unloading, etc.

Due to the working of various factors opposed to the best possible car handling, as already enumerated, experience has indicated that an adequate and persistent follow-up must be pursued. This consists primarily in the use of a system that will be largely self-sustaining as to its completeness and its accuracy, brought about by following a simple set of instructions and checking compliance periodically in the terminals. Excessive delays, which might occur at any terminal where the local supervisory forces have not made proper use of the system, are remedied by the plan of sending copies of car detention reports to the superintendent of transportation; also, through the traveling representative's field-check reports which are furnished to the general manager and the superintendent of transportation, and, if necessary, placed in the hands of the special representative of the general manager for investigation.

The system contemplates reports of two types. First, are the reports designed to cover detention of cars charge-

able entirely to service of yard locomotives. In addition to the usual carding and the daily yard check of cars on hand, these consist of the "Notice of Car Delayed Over 24 Hours for Switch Engine Service," (Form CT-54), and the "Report of Cars Delayed More than 24 Hours for Switch Engine Service" (Form CT-56), shown in Figures 1 and 2 respectively. Compilation of the information on these forms begins with the carding of all cars received in trains from connecting lines immediately upon arrival, particular attention being given to entries showing the date of receipt and the disposition to be made of the car. A check of all cars on hand is made daily as near 7 a. m. as practicable, showing the track location, whether or not actually placed for loading or unloading, date received, and other pertinent information obtained from the carding. This complete and early yard check, so assigned to various employees as to permit its completion within an hour, is the basis of the whole detention-checking plan.

A clerk who is in a position to give precedence to the work is assigned to make the car detention notices and reports. As soon as these are available the yard checks of cars on hand are examined and a notice issued covering each car of whatever kind or class, which, from comparison with yard checks of the previous day, appears to have been delayed over 24 hours for switch engine service. These notices are delivered promptly to yardmasters or assistants who, having accomplished the movement indicated, places his O. K. thereon and returns them to the yard office, where they are matched with carbon copies. Separate notices for individual cars facilitate the return of completion reports; and any notices outstanding after the date of issue are repeated with a special notation called to the attention of the general yardmaster and made available to the terminal superintendent.

Form CT-56 is used to follow up the movement of cars delayed, as reflected by the notices listed thereon; as soon as the issuance of notices is completed for the day the form is immediately turned over to the terminal superintendent. Where terminal conditions are such as to require district assignment of crews and yard clerks, arrangements are made to have the latter deliver the form CT-54 notices direct to the district yardmasters or switch crew foremen, sending copies to the general yard office for inclusion in the report to the terminal superintendent. These notices are due to be furnished to yardmasters by the middle of the day and as much earlier as possible in order that they may have sufficient time in which to take effective action. There is a distinct supervisory advantage in the fact that yard crew foremen, assistant yardmasters, and yardmasters realize that any failure to move a car promptly after it has been carded will come to the attention of their respective superiors.

The second part of the plan consists of the follow-up afforded by information contained in the "Report of Cars on Hand Over —— Days" (Form CT-47), which is shown in Figure 3. This report, furnished to the terminal superintendent and to the superintendent of transportation, lists only such cars as have been on hand more than a specified number of days (from two to five, according to the terminal and local conditions), and in times of car surpluses, includes only foreign per-diem-earning cars. It is prepared from information afforded by the daily yard checks of cars on hand together with the date of receipt shown in the indexed terminal car record and other information available in the yard and agency offices.

Complete Analysis Not Needed

It was concluded that a complete analysis of the daily cause of detention of all foreign cars on hand without regard to the period detained, as is sometimes attempted, is not a necessity and is prohibitive as to expense; furthermore, it has a tendency to conceal delays which should receive attention. This report form was, therefore, designed to include only such cars as are likely to have been delayed, i. e., those remaining on hand for a minimum period of any given number of days, according to local conditions at each terminal. Detention of foreign per diem cars delayed more than this specified minimum is analyzed and fully reported on this form. It will be noted that provision is made for every class of detention. This is essential in order that detention reported under controllable and uncontrollable causes will check out with total number of days on hand, thus contributing to accuracy and providing a segregation of the controllable detention as between various departmental responsibilities. For this purpose some terminals find it convenient to maintain a daily historical record of cars used in terminal service at industries. Test checks have indicated that while this report does not bring the minor delays to the surface, yet, when it is coupled with the other car detention reports and notices, practically all of the high points are brought out—and in sufficient time to afford an effective check of the various phases of foreign-car detentions.

40M 12-38 Form CT-54 Std.

FRISCO

NOTICE OF CAR DELAYED OVER 24 HOURS FOR SWITCH ENGINE SERVICE

Car _____ Date Rec'd. _____

Present Location _____ Checked. Date _____ Time _____ M.

To be switched to _____

Remarks: _____

Signed: _____

O K by _____ Date _____ Time _____ M.

Fig. 1—This Notice Is Prepared Early in the Day for each Car Which Has Awaited Switch - Engine Service for More than 24 Hours

Timely Reports Bring Maximum Results

Maximum results are achieved by having these various reports and notices made at the earliest practicable moment; the notices promptly delivered to yardmasters and Forms CT-56 and CT-47 promptly delivered to the terminal superintendent, thus bringing the delay to the attention of those having to do with car movements sufficiently early to enable them to prevent further deten-

20M 8-36 Form CT-56 Local

FRISCO

REPORT OF CARS DELAYED MORE THAN 24 HOURS FOR SWITCH ENGINE SERVICE

.....Yard, Time .....M, Date ..... 19 ..

Initials	Numbers	Kind	Class Load'g Fit For	Contents	Date Rec'd	Days Delayed For Switching	To Be Switched		O.K. By
							FROM	TO	

(Sig.).....

Fig. 2—This Daily Report Goes to the Terminal Superintendent, Becoming the Basis for His Follow-Up on the Movement of Cars Delayed as Reflected by the Notices Listed Thereon

tion. As a further check on omissions from the report, the cars shown on hand at terminals for reportable periods according to general car records are checked with the local reports.

Field checks are made in such manner as to test the accuracy of the compilation of all notices and reports, beginning with an examination of daily yard checks and local indexed car records for sufficient test periods. Also tested is the promptness with which the yard checks, reports and notices are made, as indicated by the time shown thereon and by observations of the traveling representative. Every feature of the reports is checked in detail for the test period selected; thus the service of an experienced field man competent to analyze every situation is necessary. Through repeated visits he becomes familiar with conditions and problems at each terminal. Since the plan will function effectively when instructions are followed, field checks may be limited very largely to checking compliance with the regulations governing compilation and handling of notices and reports. This phase, however, requires careful and detailed audits, owing to danger to wrongly assign responsibility for detention.

The plan is elastic in that the minimum number of days detention for which cars are reportable and the class of cars desired to be reported may be changed to suit current and local conditions. Incidentally, a check of the application of the demurrage rules is obtained by comparison with the demurrage record books of the detention chargeable in the "Demurrage" column on Form CT-47. Thus many of the cars most likely to accrue demurrage are covered. This also maintains a valuable tie-up between the agency and yard office concerning situations in which the facts may be disputed—for example, cases in which it is reported that certain patrons do not have room on their private tracks for all of their business. The conflict is promptly resolved, often with an avoidance of more important subsequent disputes with patrons concerning the accrual of demurrage.

As will be realized from the foregoing the plan places emphasis upon the promptness with which avoidable car detention is brought to the attention of those charged with responsibility for movement, i. e., in sufficient time to enable them to avoid more than slight delay, as com-

(*Continued on page 1018*)

FRISCO

REPORT OF CARS ON HAND OVER _____ DAYS

STATION OR YARD, DATE _____ 19____

INITIALS	NUMBER	KIND	CLASS LOAD FIT FOR	CONTENTS	DATE REC'D	TOTAL DAYS ON HAND	NUMBER DAYS AND CAUSES OF DETENTION										REMARKS
							1 FOR SWITCH ENGINE SERVICE	2 FOR TRAIN MOVEMENT	3 EMPTY FOR PROSP. LOAD'G	4 BAD ORDER	5 Under Demurrage Rules: LOADING	5 Under Demurrage Rules: UNLOADING	5 Under Demurrage Rules: Other Demurrage	6 COMPANY MATERIAL	7 OTHER CAUSES: DAYS	7 OTHER CAUSES: CAUSE	
		1															
		2															
		3															
		4															
		5															
		6															
		7															
		8															
		9															
		10															
		11															
		12															
		13															
		14															

Fig. 3—This Report, Furnished to the Terminal Superintendent and the Superintendent of Transportation, Lists Only Cars on Hand at the Reporting Point More than the Allowable Maximum Number of Days

G. L. Bourne Dies At 67 of Illness

Was one of group which founded The Superheater Co.; chairman since 1932

George L. Bourne

GEORGE LEWIS BOURNE, chairman of the board of The Superheater Company, died on May 25 at his home in Larchmont, N. Y., after an illness of several months' duration, at the age of 67. Active in the railroad and railroad supply field since his youth, Mr. Bourne is known to the industry principally for his work in organizing the Locomotive Superheater Company (predecessor of The Superheater Company) for the purpose of uniting and standardizing the results of the experimental period of superheaters for railroad service.

He was born in London, Eng., in 1874. After a period of preparatory school study at Rugby, he emigrated to Canada where he was employed by the Hudson's Bay Company and the Canadian Pacific. In 1893, Mr. Bourne came to the United States and for the next decade held various jobs, chiefly as fireman and locomotive engineer, on a number of western roads, including the Northern Pacific and the Chicago Great Western. On the latter road he served for a time under Walter P. Chrysler, the automobile manufacturer, then master mechanic at Oelwein, Ia., whose close friend he remained until his death.

Leaving railroad service, Mr. Bourne for a short time taught air brake practice at the International Correspondence School, Scranton, Pa., after which he entered the railway supply field as a salesman, including service as vice-president of the Railway Materials Company, Chicago, between 1904 and 1910. During this period, Mr. Bourne had occasion to frequent most of the railroad shops in the country while selling such products as the Ferguson oil furnace and made an extensive study of motive power problems.

At this time he became interested in the design and manufacture of superheaters for locomotives which were being developed by the German Dr. Wilhelm Schmidt, Messrs. Vaughan and Horsey in Canada and others. In 1910, he joined S. G. Allen and the late J. S. Coffin in incorporating the Locomotive Superheater Company which took over scattered patents for superheating equipment and established manufacture on a large scale. He himself was made vice-president.

The new company soon expanded to cover other specialty products for locomotives and engaged in the manufacture of superheaters for marine and steam power plant use. In 1915, Mr. Bourne became its president. In 1916, he joined with G. M. Basford, Messrs. Allen and Coffin and others in forming the Locomotive Feed Water Heater Company, which Superheater later absorbed.

In 1932, Mr. Bourne was elected chairman of the board of The Superheater Company and was succeeded as president by Frederic A. Schaff. The following year, Superheater purchased a controlling interest in the International Combustion Engineering Corporation and affiliates, designers and manufacturers of a complete line of boilers and fuel-burning and related equipment, and The Air Preheater Corporation. Mr. Bourne was made chairman of the re-organized Combustion Engineering Company, Inc.

Mr. Bourne was a member of a large number of social and professional organizations, including the Western Railway, New York Railroad and Central Railway Clubs, the Newcomen Society and the American Society of Mechanical Engineers.

The business of The Superheater Company is the manufacture and sale of steam superheaters for locomotive, marine, stationary and oil-field boilers under a substantial number of United States, Canadian and foreign patents owned. The company also produces separately-fired superheaters, locomotive feedwater heaters and exhaust steam injectors, steam driers, superheated steam pyrometers, water-cooled furnace walls, economizers, heat exchangers, steam re- and de-superheaters and special pipe coils under exclusive patents. It operates a large manufacturing plant at East Chicago, Ind., covering 16½ acres; a plant at Sherbrook, Que., through the Superheater Company, Ltd.; at Manchester, Eng., through the Superheater Company, Ltd. of London and at Montigny, France, through affiliated companies. Its name was changed from the Locomotive Superheater Company in 1921.

C. N. Refrigerator Cars with Overhead Ice Tanks

Tests demonstrate ability to maintain even temperatures throughout car, to reduce refrigeration costs, and to increase earnings by heavier loading

BECAUSE of the difficulties encountered in the transportation of perishable products, particularly frozen products where there was a tendency toward defrosting the upper part of the load, the Canadian National decided several years ago to experiment with refrigerator cars having the ice overhead in shallow tanks. After building and testing experimental refrigerator cars of this type, it was decided that cars with continuous baffles or drip pans under the overhead ice tanks which connect up with side flues and have tanks that retain half the meltage were the most desirable.

The continuous baffles under the tanks catch the ice meltage and conduct it to the side flues down which it passes to gutters under the floor racks which connect with conventional drains at the ends of the car. These baffles also eliminate the possibility of condensation on the tanks from damaging the lading which was one of the principal objections that had to be overcome in developing this type of refrigerator car. The retention of all the meltage in the tanks would make it necessary to drain off part of this low-temperature brine upon re-icing with the resulting loss of a solution which has considerable refrigerating value. For this reason the tanks retain part of the brine and the balance absorbs heat from the car as it passes over the baffles and down the side flues on its way to the drains. The brine that remains in the tanks also assists in maintaining the proper mixture of ice and salt.

The Canadian National has built 100 refrigerator cars of this design, the first of which was received from its Transcona shops in October, 1939. These cars have eight overhead tanks with a total capacity of 6,500 lb. of crushed ice. They have steel superstructures with inside wood linings, metal sub-floors and metal inside floors, cadmium plated. They are equipped with underslung charcoal heaters having manually operated draft controls and with Liquidometers for indicating the inside temperatures, the dials of which are conveniently located on the outside of the car near the doorway for the checking of temperatures enroute.

The cars are furnished with underframes of A. A. R. design and Barber stabilized trucks having Dalman cast-steel side frames. They have an inside length of 40 ft., an inside width of 8 ft. 5⅜ in. and an inside height between the top of the floor racks and the bottom of the meat racks of 6 ft. 7 in. The cars have a weight capacity of 65,000 lb., a cubic capacity of 2,216 cu. ft. and a light weight of 70,200 lb.

The Steel Superstructure

The superstructure is of steel instead of wood as commonly employed in refrigerator cars, copper-bearing steel being used for all plates and pressings under ½-in. in thickness. The outside sheathing is of 10-in. plate with the plate offset at the lapped joints which are made water tight by the application of a layer of asbestos felt. The cars are equipped with Dreadnaught steel ends and the Murphy all-steel riveted roof with which are combined the hatch frames.

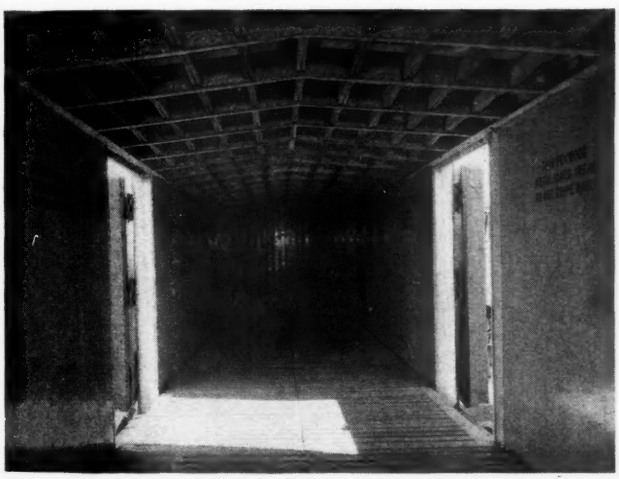
The inside steel framing consists of an inside side sill of 3-in. by 3-in. by ¼-in. angles, an inside side plate,

The Canadian National Refrigerator Cars Have Steel Superstructures

8 in. by 3/16 in., and Z-section side posts, 1 3/16 in. by 3 in. by 2 3/16 in., to which are bolted 2 7/8-in. by 2 1/2-in. sub side posts of fir. The ceiling carlines are 2 1/2-in. U-shaped pressings of 1/8-in. steel to which are fastened 2 1/4-in. by 1 1/2-in. furrings. To the furrings is nailed a ceiling of 13/16 by 3 1/4-in. fir. The hatch frames are of 5/32-in. pressed steel and are welded to the roof sheets and to the hatch carlines. The combination hatch covers and plugs are built up of wood and steel and have Equipco hatch closure fittings. The edge seal consists of hair insulation covered with canvas while the top seal is made of sponge rubber cemented to the hatch frame.

The ice tanks are suspended below the ceiling by pressed brackets riveted to channel-shaped pressings of 1/8-in. open-hearth steel, 5 in. deep, running crosswise of the car. The tanks have an inside length of 8 ft. 6 in., an inside width of 3 ft. 3 in. and are made in two pieces of No. 13 gage open-hearth steel bolted together by 5/16-in. cadmium-plated bolts. There are six 1-in. drain holes on the inside vertical wall of each tank and a special brass valve at the bottom to permit the drainage of the brine from the tanks. A galvanized-wire netting is applied between the top of the tank and the under side of the hatch frame.

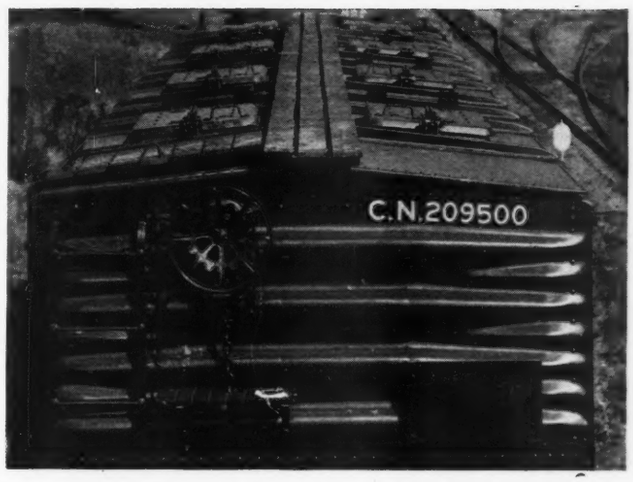
The continuous baffles or drain pans under the tanks are built up of No. 22 gage open-hearth steel, wood furrings, and five-ply 5/8-in. plywood panels. They are supported at the center of the car by brackets fastened to the ceiling carlines and to the tank-support channels and at the sides of the car by brackets fastened to the meat-rack supporting angles. A removable pan is installed under the brine drain valve on the outside edge



The Finished Interior—The Inside Height Is 6 ft. 7 in.

of each tank. Both the ice tanks and the drain pans have a Promat finish which is a flexible vitreous enamel baked on the steel, giving to them a porcelain-like rust-proof surface. Underneath the drain pans are nine white oak meat racks running the length of the car which are supported by 19 meat-rack carriers made of 1/8-in. channels.

The air ducts through which the cold air circulates downward at the sides of the car consist of steel pans and covers of No. 22 gage open-hearth steel with a Promat finish. Over the duct covers is a 5/8-in. plywood lining with the panels extending from the top of the floor rack to the underside of the meat-rack supporting angles and from center to center of the inside wood posts.



There Are Four Hatches on Each Side of the Running Board

A deafening floor of No. 16 gage copper-bearing steel is riveted to the underframe. Above the deafening floor is a wood floor supported by sub side sills of 6-in. by 3 5/16-in. fir and by a 2-in. by 4-in. wood stringer at the center.

A departure from the usual construction of refrigerator-car floors is the application of a steel floor, cadmium plated, over the wood floor. It is of 1/8-in. steel made in sections bolted together with the seams filled with a water-proof compound. The outside edges of the sections are shaped to form a continuous gutter at each side of the car connecting up with drain traps at the corners. This floor is held to the inside side sill by brackets but is not fastened to the six 1 1/8-in. by 3-in. wood stringers running the full length of the car which support the floor between the sides.

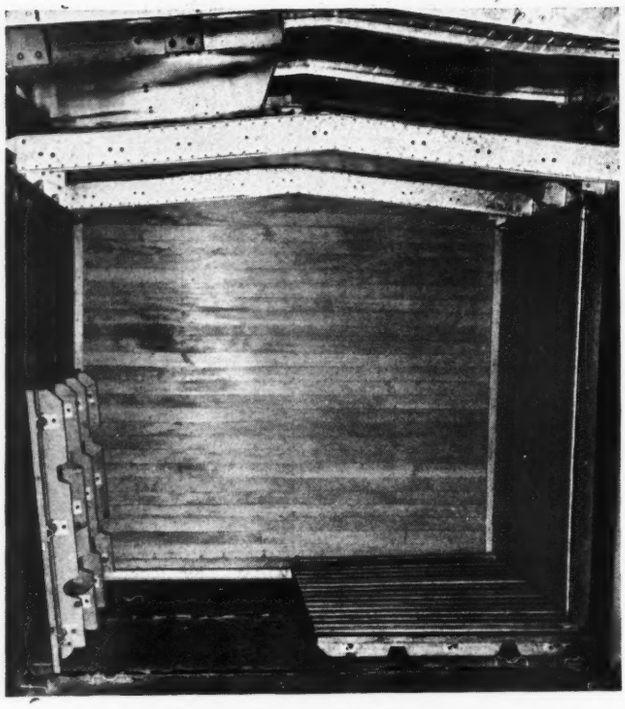
The cars are equipped with hinged floor racks. The supports for the hinges and the heater coils are welded to the steel floor. The side doors have a steel frame with outside sheeting of 0.10-in. copper-bearing steel pressed to shape, and are hung by three self-locking hinges. The doors are equipped with ducts and lining similar to that applied to the body of the car.

Insulation

The cars are insulated by layers of Hairinsul in the sides, floors, and roofs. To the inside of the sheathing is applied four layers of 1-in. insulation, each layer extending from side sill to side plate and from door post around the ends of the car to the opposite door post in one continuous piece. The insulation is held in position by special holders which do not compress it at any point which would decrease its efficiency. The wood ceiling is covered with five layers of 1-in. insulation, each layer running from side plate to side plate for the length of the car with eight openings cut out for the hatch frames. Under the wood floor are four layers of this insulation, each layer in one piece and covering the full length and width of the car. The spaces between the wood stringers supporting the steel floor are filled with one layer of Hairinsul.

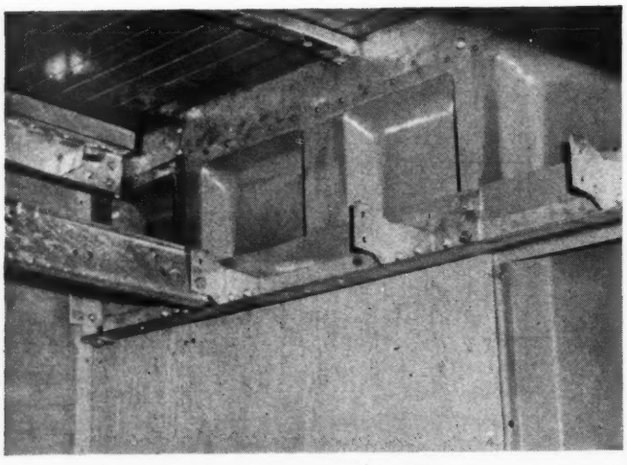
Four layers of insulation are applied to the hatch covers and to the side doors, each layer being in one piece. The door plates are made of a special non-conductive material.

The tests conducted by the Canadian National have demonstrated that these cars possess advantages over the conventional refrigerator car with end bunkers. A



One Ice Tank in Place before the Application of the Continuous Baffles—The Hinged Floor Rack Is Raised to Show the Cadmium-Plated Steel Floor

great reduction in temperature gradient between the top and bottom of the lading is obtained, making it possible to load perishable commodities to the ceiling, particularly those products shipped in a frozen condition. The elimination of end bunkers and doorway bracing, together with the ability to load the cars to the ceiling, permits the cars to be loaded more heavily. The ice in the tanks is effective to the last pound and the meltage absorbs considerable heat before leaving the car, thus reducing the refrigeration costs.



Side Construction Showing the Metal Flues Through Which the Cold Air Circulates Downward

Although the test runs so far for which data are available have of necessity been made during the colder seasons, they include runs made with shipments of oranges from Florida and California to New York, bananas from New Orleans, La., to Omaha, Neb., apples from Kelowna, B. C., to Montreal, and shipments of frozen fish from Canada to destinations in the northern part of the United States.

A test run was made with one of these cars loaded with 840 boxes of oranges weighing 65,520 lb., as compared with a standard end-bunker car load of 462 boxes weighing 34,036 lb., from Bryn Mawr, Cal., to New York. The oranges were at a temperature of 62 deg. F. when loaded and were delivered at New York at a temperature of 45 deg. F. requiring only 12,200 lb. of ice for the entire trip. In another test run made with a shipment of oranges from Auburndale, Fla., to New York, the car carried a load of 65,000 lb. as compared with a standard load of 36,000 lb. On this run the load was cooled an average of 27 deg. F. in about 71 hr.

Principal Dimensions and Data of the Canadian National Refrigerator Cars with Overhead Ice Tanks

Length over strikers, ft.-in.	41—11¾
Length inside, ft.-in.	40— 0
Length, center to center of trucks, ft.-in.	31— ¾
Width over side plates, ft.-in.	9— 9⅞
Width, inside, ft.-in.	8— 5⅜
Height, inside, ft.-in.	6— 7
Height, rail to top of running board, ft.-in.	14— 1¹⁄₁₆
Ice capacity, lb.	6,500
Capacity, cu. ft.	2,216
Capacity, lb.	65,000
Light weight, lb.	70,200

A shipment of 1,152 boxes of apples was tested under heater protection from Kelowna, B. C., on January 31, 1940, and arrived in Montreal on February 6, 1940. The test records show that the outside temperature ranged from 8 to 32.5 deg. F. and the difference between the average top and bottom temperatures in the car ranged from 0.2 to 1.7 deg. F. as indicated by 16 electrical resistance thermometers, half of which were located in the top boxes and the other half in the bottom boxes of the load. A standard load of apples in an end-bunker car is 750 boxes.

Icing and Temperature Record of Canadian National Overhead Ice Car 209509 with Shipment of Frozen Fish, Prince Rupert, B. C. to Chicago

Station	Time	Date, 1939	Liquidometer Temp., deg. F. Top	Liquidometer Temp., deg. F. Bottom	Outside Temp., deg. F.	Ice and Salt Supplied, lb. Ice	Ice and Salt Supplied, lb. Salt
Prince Rupert	.....	Dec. 7	..	..	..	6,000	1,500
Prince Rupert	.....	Dec. 8	..	..	..	2,400	600
Prince Rupert	6:00 p.m.	Dec. 8	20	14	40	....	....
Pacific	1:15 a.m.	Dec. 9	9	10	38	....	....
Smithers	7:25 a.m.	Dec. 9	8	8	30	....	....
Endako	1:10 p.m.	Dec. 9	6	8	38	....	....
Pr. George	6:00 p.m.	Dec. 9	6	6	35	....	....
McBride	.....	Dec. 10	6	6	38	....	....
Jasper	8:30 a.m.	Dec. 10	6	6	32	....	....
Edson	2:45 p.m.	Dec. 10	6	6	32	....	....
Calder	9:30 p.m.	Dec. 10	6	6	29	....	....
Wainwright	6:45 a.m.	Dec. 11	6	6	30	....	....
Nutana	5:00 p.m.	Dec. 11	6	8	32	....	....
Melville	7:30 a.m.	Dec. 12	6	7	20	....	....
Rivers	12:45 p.m.	Dec. 12	6	6	20	....	....
Winnipeg	9:00 p.m.	Dec. 12	6	6	4	....	....
Rainy River	.....	Dec. 13	4	5	2	....	....
Ft. Frances	2:15 p.m.	Dec. 13	2	2	18	....	....
Duluth	11:30 a.m.	Dec. 14	2	2	30	....	....
St. Paul	6:05 a.m.	Dec. 15	2	2	29	....	....
Milwaukee	.....	Dec. 15	8	6	44	....	....
Bensonville	1:35 a.m.	Dec. 16	9	6	37	....	....
Chicago	7:30 a.m.	Dec. 16	9	6	38	....	....

A test run was made with a shipment of frozen fish from Boston to Chicago without re-icing en route. The car arrived at its destination with a top temperature of 8 deg. F. and a bottom temperature of 9 deg. F. while during the run the outside temperatures had varied from 22 to 55 deg. F. The consignees reported that from the standpoint of refrigerated condition this was the best shipment they had ever received at Chicago. Another shipment of 48,308 lb. of quick frozen fish departed

from Halifax, Nova Scotia, on February 20, 1940, with ice in only four tanks, and a sixth morning delivery was made at Philadelphia, Pa., without re-icing enroute. The Liquidometer indicated a top and bottom temperatures of 10 and 8 deg. F., respectively. The outside temperatures ranged from 8 to 38 deg. F. during this run.

In an accompanying table is shown the icing and temperature record of a shipment of frozen fish from Prince Rupert, B. C., to Chicago, which is typical of the test runs made with this commodity. The shipment weighed 41,116 lb. and the car was billed to re-ice if the top inside temperature rose above 10 deg. F. using 2,400 lb. of ice and 25 per cent salt. It was not necessary to re-ice en route, although heretofore such shipments during the winter season were re-iced at all seven regular icing stations, and the delay incident to re-icing was eliminated.

For purposes of comparison the Canadian National ran a test in August, 1939, with one of its experimental refrigerator cars having overhead ice tanks along with a conventional end-bunker car, both loaded with bananas, from New Orleans, La., to Omaha, Neb. The temperature records of both cars are given in another table and show the average top and bottom temperatures and the temperature differences in both cars. It will be noted that it was necessary to undercool the bottom of the load in the end-bunker car in order to quickly cool the top of the load with minimum temperatures as low as 44 deg. F. being obtained. The record shows that much more even temperatures prevailed in the car with overhead icing.

Comparison of Temperatures in an Experimental Canadian National Overhead Ice Car and a Conventional End-Bunker Car, Both Loaded with Bananas, New Orleans, La. to Omaha, Neb.

Station	Time	Date, 1939	Outside temp., deg. F.	Average temp., deg. F. Top	Average temp., deg. F. Bottom	Temp. Spread, deg. F.	Max. Temp. deg. F.	Min. Temp. deg. F.	Temp. Spread deg. F.
Canadian National 207902									
New Orleans, La. (after loading)	11:45 a.m.	Aug. 25	87	79.20	78.6	.60	80	77.5	2.5
New Orleans, La. (at ice house)	2:40 p.m.	Aug. 25	91	78.75	78.0	.75	79.5	77.0	2.5
McComb, Miss.	7:35 p.m.	Aug. 25	80	74.80	73.0	1.80	76.7	69.7	7.0
Jackson, Miss.	10:00 p.m.	Aug. 25	75	72.30	70.4	1.90	75.0	67.5	7.5
Memphis, Tenn.	8:45 a.m.	Aug. 26	85	63.90	59.4	4.50	67.2	56.0	11.2
Fulton, Ky.	2:30 p.m.	Aug. 26	94	60.40	55.5	4.90	63.3	52.8	10.5
Bluford, Ill.	9:15 p.m.	Aug. 26	68	58.40	55.1	3.30	60.2	53.0	7.2
Effingham, Ill.	1:05 a.m.	Aug. 27	62	57.30	55.0	2.30	59.2	52.0	7.0
Champaign, Ill.	3:40 a.m.	Aug. 27	56	56.60	54.9	1.70	58.3	51.0	7.2
Chicago	8:30 a.m.	Aug. 27	77	55.90	54.7	1.20	57.3	50.8	6.5
Hart, Ill.	1:30 p.m.	Aug. 27	80	56.30	54.8	1.50	57.3	52.0	5.3
Freeport, Ill.	2:40 p.m.	Aug. 27	88	56.40	54.9	1.50	57.5	52.2	5.3
Dubuque, Ia.	8:00 p.m.	Aug. 27	68	57.60	55.6	2.00	58.5	53.7	4.8
Fort Dodge, Ia.	3:40 a.m.	Aug. 28	59	59.40	57.4	2.00	60.0	56.0	4.0
Omaha, Neb.	9:00 a.m.	Aug. 28	76	59.80	58.4	1.40	60.2	57.0	3.2
Illinois Central 50286									
New Orleans, La. (after loading)	11:50 a.m.	Aug. 25	87	79.80	78.2	1.60	81.5	77.0	4.5
New Orleans, La. (before icing)	2:40 p.m.	Aug. 25	91	80.30	78.2	2.10	81.5	77.5	4.0
McComb, Miss.	7:35 p.m.	Aug. 25	80	75.90	64.2	11.70	76.7	58.5	18.2
Jackson, Miss.	10:00 p.m.	Aug. 25	75	73.30	58.1	15.20	74.7	54.0	20.7
Memphis, Tenn.	8:45 a.m.	Aug. 26	85	62.20	47.8	14.40	64.0	47.5	16.5
Dyersburg, Tenn.	1:15 p.m.	Aug. 26	94	60.70	46.6	14.10	62.2	44.2	18.0
Fulton, Ky.	2:30 p.m.	Aug. 26	94	60.30	46.5	13.80	61.5	44.0	17.5
Bluford, Ill.	9:15 p.m.	Aug. 26	68	58.60	46.6	12.00	59.8	45.0	14.8
Effingham, Ill.	1:00 a.m.	Aug. 27	62	57.20	47.8	9.40	58.8	45.5	13.3
Champaign, Ill.	3:40 a.m.	Aug. 27	56	55.90	48.7	7.20	57.1	46.5	10.6
Chicago	8:30 a.m.	Aug. 27	77	55.90	49.1	6.80	57.2	48.0	9.2
Hart, Ill.	1:30 p.m.	Aug. 27	80	57.80	50.0	7.80	59.0	48.8	10.2
Freeport, Ill.	2:40 p.m.	Aug. 27	88	58.90	50.2	8.70	60.7	49.0	11.7
Dubuque, Ia.	8:00 p.m.	Aug. 27	68	61.50	50.9	10.60	63.3	49.8	13.5
Fort Dodge, Ia.	3:40 a.m.	Aug. 28	59	61.00	52.5	8.50	62.5	52.0	10.5
Omaha, Neb.	9:00 a.m.	Aug. 28	76	60.80	53.5	7.30	62.0	53.0	9.0

* * *

A. T. & S. F. Diesel-Electric Motor No. 2 With "Super-Chief" at Denver on a Detour

(Photo, R. Kindig)

Table Tells Partial Story of Tie Renewals in 1939

Data on replacements in maintained tracks, prepared by the Bureau of Railway Economics

As an indication of the sensitivity with which maintenance expenditures respond to increased operating revenues, 80 railways inserted more ties in renewals per mile of maintained track in 1939 than in 1938, while only 50 roads, many of which are among the smaller roads, inserted less ties per mile and 3 roads inserted the same number. These 133 roads inserted 45,086,393 crossties in replacement in 1939, compared with 41,363,224 inserted in replacement in 1938, an increase of 3,723,169 ties, or 9 per cent. These and other important comparisons may be drawn from the preliminary figures just released by the Bureau of Railway Economics which is compiling complete statistics relating to tie renewals by the Class I roads, from reports made by the roads to the Interstate Commerce Commission. These figures cover the tie renewals in all maintained tracks of 133 Class I roads in the United States.

In general, the number of ties renewed per mile of maintained track, with the exceptions to be noted, did not vary greatly from the number replaced in 1938. Among the roads that made noteworthy increases in 1939, compared with 1938, in the number of ties inserted per mile of maintained track were the Delaware & Hudson, 73-118; the Pittsburgh, Shawmut & Northern, 113-181; the Baltimore & Ohio, 65,158; the Elgin, Joliet & Eastern, 98-209; the Western Maryland, 128-191; the Wheeling & Lake Erie, 90-157; the Mississippi Central, 221-338; the Chicago, Milwaukee, St. Paul & Pacific, 125-177; the Denver & Salt Lake, 42-168; and the Northwestern Pacific, 104-176. Only a few roads made marked reductions in the number of ties replaced in 1939, compared with 1938. Among them were the Pittsburgh & West Virginia, 265-169; the Chicago, Indianapolis & Louisville, 183-152; and the Spokane, Portland & Seattle, 237-183. In each of the foregoing comparisons, the 1938 figures are given first. The Canadian Pacific line in Vermont, 55; the New York, Susquehanna & Western, 73; and the Richmond, Fredericksburg & Potomac, 268, all renewed the same number of ties per mile in 1939 as in 1938, the figures indicating the number of ties for each year.

In this connection, it is also of interest to compare the number of ties inserted in replacement per mile of maintained track for the several regions and also to make the comparisons for 1938 and 1939, these being as follows, with the 1938 figures first: the New England region, 10 roads, 98-99; the Great Lakes region, 23 roads, 92-102; the Central Eastern region, 18 roads, 72-106; the Pocahontas region, 4 roads, 77-79; the Southern region, 28 roads, 163-171; the Northwestern region, 15 roads, 138-153; the Central Western region, 15 roads, 124-130; and the Southwestern region, 20 roads, 151-151. The average renewals for all of the 133 Class I roads included in the survey were 121-133, an increase of 9.9 per cent. The difference in the percentage of the total numerical increase and that of the increase in the renewals per mile of maintained track is explained by the decrease of 1,859.63 miles of maintained track in 1939 compared with 1938.

Relatively, in 1939, there was an increase of slightly more than 4 per cent in the use of treated ties; treated ties having constituted 84.8 per cent of all ties inserted in replacement in 1939, compared with 80.7 in 1938. Numerically the increase was 4,862,496, from 33,391,042 treated ties in 1938 to 38,253,538 in 1939, representing an absolute increase of 14.5 per cent. Forty-one roads used no untreated ties in replacement in 1939, and 11 roads used none that were treated, while 1 road used nothing but second-hand ties, which it reapplied to cover its needs for replacement. This compares with 36 roads that applied treated ties exclusively in 1938 and 12 that used untreated ties exclusively.

The data presented cover a total of 338,875.43 miles of maintained tracks, compared with 340,735.06 in 1938.

Crossties Laid in Replacement in Previously Constructed Tracks During 1939

Road	Miles of maintained track	Crossties laid in replacement during year 1939 — Treated	Untreated	Other	Total	Number of wooden crossties renewed per mile of maintained track—1939	Number of wooden crossties renewed per mile of maintained track—1938
NEW ENGLAND REGION:							
Bang. & Aroos.	830.14	.....	150,009	.....	150,009	181	190
B. & M.	3,093.00	181,428	32,361	.....	213,789	69	73
C. N. R. (lines in New Eng.)	249.30	28,498	16,994	.....	45,492	182	130
C. P. R. (lines in Me.)	212.50	11,707	.....	.....	11,707	55	107
C. P. R. (lines in Vt.)	132.02	6,351	985	.....	7,336	55	55
Cen. Vt.	497.31	51,938	790	.....	52,728	106	100
Me. Cent.	1,240.30	39,586	184,225	.....	223,811	180	202
N. Y. Connecting	25.90	8,926	.....	.....	8,926	344	297
N. Y. N. H. & H.	4,018.74	329,309	.....	.....	329,309	82	70
Rutland	499.86	23,277	.....	*322	23,599	47	57
Total—New England Region	10,799.07	681,020	385,364	322	1,066,706	99	98
GREAT LAKES REGION:							
Ann Arbor	405.15	35,231	.....	.....	35,231	87	90
Camb. & Ind.	59.28	12,399	5,930	.....	18,329	309	342
D. & H.	1,457.42	170,782	762	s6,605	178,149	118	73
D. L. & W.	2,339.51	81,592	.....	*14,494	96,086	41	57
Det. & Mack.	293.51	11,482	21,481	.....	32,963	112	156
D. & T. Shore Line	151.58	19,796	.....	*768	20,564	135	82
Erie (incl. C. & E.)	4,845.19	429,719	491	.....	430,210	89	82
G. T. W.	1,945.70	327,132	.....	.....	327,132	168	144
L. & H. R.	118.00	13,509	.....	*715	14,224	120	90
L. & N. E.	266.82	18,013	.....	.....	18,013	67	59

Crossties Laid in Replacement in Previously Constructed Tracks During 1939—Continued

Road	Miles of maintained track	Crossties laid in replacement during year 1939 — Treated	Untreated	Other	Total	Number of wooden crossties renewed per mile of maintained track—1939	Number of wooden crossties renewed per mile of maintained track—1938
L. V.	2,719.52	142,093	.....	.....	142,093	52	46
Monongahela	241.70	43,223	.....	.....	43,223	178	104
Montour	71.37	5,171	2,448	.....	7,619	106	88
N. Y. C.	21,719.42	2,030,776	392	*16,454	2,047,622	94	83
N. Y. C. & St. L.	2,522.19	293,980	.....	s50	294,030	117	94
N. Y. O. & W.	872.84	.....	.....	*28,541	28,541	33	43
N. Y. S. & W.	228.04	16,705	.....	.....	16,705	73	73
P. M.	2,820.41	471,487	.....	.....	471,487	167	153
P. & L. E.	925.99	63,476	1,495	.....	64,971	70	32
Pitt. & Shaw	124.49	16,960	8,479	*379	25,818	207	224
P. & W. Va.	198.26	32,463	1,142	.....	33,605	169	265
P. S. & N.	221.24	.....	40,107	.....	40,107	181	113
Wabash	3,186.50	514,721	.....	.....	514,721	161	153
Total—Great Lakes Region	47,734.13	4,750,710	82,727	68,006	4,901,443	102	92
CENTRAL EASTERN REGION:							
A. C. & Y.	213.35	4,782	13,384	*26,115	44,281	207	165
B. & O.	10,611.60	1,672,083	1,122	.....	1,673,205	158	65
B. & L. E.	490.48	94,185	195	s1	94,381	192	212
C. of N. J.	1,486.51	104,044	.....	.....	104,044	70	40
C. & E. I.	1,469.05	155,472	.....	.....	155,472	106	111
C. & I. M.	164.66	11,557	.....	.....	11,557	70	76
C. I. & L.	807.18	119,811	4	*2,898	122,713	152	183
D. T. & I.	611.57	57,780	2,659	.....	60,439	99	110
E. J. & E.	871.12	179,885	.....	*2,691	182,576	209	98
Ill. Term.	634.65	53,475	915	*7,439	61,829	97	84
Long Island	817.96	53,500	.....	.....	53,500	65	60
Missouri-Ill.	238.97	7,655	64,506	.....	72,161	302	279
Penna.	21,323.15	1,648,926	.....	i761	1,649,687	77	60
P-R Seashore Lines	661.88	58,627	.....	.....	58,627	89	76
Reading	3,027.59	134,634	.....	.....	134,634	44	28
S. I. Rap. Tran.	80.21	1,865	.....	.....	1,865	23	52
W. M.	1,167.47	176,431	46,329	.....	222,760	191	128
W. & L. E.	844.79	132,318	.....	*657	132,975	157	90
Total—Central Eastern Region	45,522.19	4,667,030	129,114	40,562	4,836,706	106	72
POCAHONTAS REGION:							
C. & O.	5,069.05	420,287	.....	.....	420,287	83	85
N. & W.	4,228.23	160,221	.....	*6,048	166,269	39	22
R. F. & P.	371.63	99,756	.....	.....	99,756	268	268
Virginian	872.84	150,884	154	*1,565	152,603	174	178
Total—Pocahontas Region	10,541.75	831,148	154	7,613	838,915	79	77
SOUTHERN REGION:							
A. G. S.	548.13	60,361	2,912	.....	63,273	115	149
A. & W. P.	141.54	341	24,460	.....	24,801	175	162
W. Ry. of Ala.	182.22	616	29,272	.....	29,888	164	175
A. B. & C.	794.22	36,138	82,923	.....	119,061	150	151
A. C. L.	6,832.77	560,858	297,780	.....	858,638	126	129
C. of Ga.	2,343.97	350,047	14,616	.....	364,663	155	145
C. & W. C.	427.80	.....	58,130	.....	58,130	135	146
C. N. O. & T. P.	772.17	63,181	.....	.....	63,181	82	86
Clinchfield	395.81	39,412	50,827	.....	90,239	228	252
Col. & Green.	203.91	31,211	12,890	.....	44,101	216	203
F. E. C.	1,344.46	.....	260,949	.....	260,949	194	134
Georgia	433.11	3,944	68,878	.....	72,822	168	161
G. & F.	451.95	.....	90,819	.....	90,819	201	181
G. S. & F.	469.75	.....	49,163	.....	49,163	105	77
G. & S. I.	309.52	70,389	.....	*229	70,618	228	194
G. M. & N.	931.38	188,201	70,040	*436	258,677	278	257
I. C.	7,743.10	1,283,639	41,453	*263	1,325,355	171	147
Y. & M. V.	2,114.01	226,528	185,668	.....	412,196	195	170
L. & N.	6,873.85	758,887	49,710	.....	808,597	117	113
Miss. Cen.	168.18	54,567	2,287	.....	56,854	338	221
M. & O.	1,196.07	255,705	157,515	.....	413,220	345	299
N. C. & St. L.	1,522.42	160,715	.....	*69	160,784	106	109
N. O. & N. E.	281.38	27,573	.....	.....	27,573	98	116
Nor. Sou.	932.54	.....	312,158	.....	312,158	334	279
Nor. Ala.	119.89	23,114	20,918	.....	44,032	367	394
S. A. L.	5,368.14	615,385	375,805	.....	991,190	185	187
Southern	8,706.05	1,210,067	515,863	.....	1,725,930	198	205
Tenn. Cent.	336.21	218	75,960	.....	76,178	226	200
Total—Southern Region	51,944.55	6,021,097	2,850,996	997	8,873,090	171	163
NORTHWESTERN REGION:							
C. & N. W.	12,040.24	1,639,606	43,689	.....	1,683,295	140	139
C. G. W.	1,896.11	174,848	122,672	.....	297,520	156	157
C. M. St. P. & P.	13,825.32	1,892,913	551,749	.....	2,444,662	177	125
C. St. P. M. & O.	2,223.37	347,100	44,272	.....	391,372	176	182
D. M. & I. R.	1,166.00	69,641	27,853	.....	97,494	84	63
D. S. S. & A.	513.48	1,426	90,130	.....	91,556	177	193
D. W. & P.	209.78	11,000	50,433	.....	61,433	292	320
G. N.	9,898.17	1,289,943	14,511	*47,123	1,351,577	136	106
G. B. & W.	282.50	15,355	78,623	.....	93,978	332	320
L. S. & I.	235.52	2,357	32,401	.....	34,758	148	168
M. & St. L.	1,669.25	108,744	259,881	.....	368,625	221	198
M. St. P. & S. S. M.	4,957.39	254,235	406,928	.....	661,163	133	161
N. P.	9,058.30	1,210,603	20,284	.....	1,230,887	136	128
Spokane International	180.54	.....	63,449	.....	63,449	351	329
S. P. & S.	1,088.45	144,880	54,341	.....	199,221	183	237
Total—Northwestern Region	59,244.42	7,162,651	1,861,216	47,123	9,070,990	153	138
CENTRAL WESTERN REGION:							
Alton	1,508.12	178,191	200,971	*10,575	389,737	258	248
A. T. & S. F.	19,375.01	1,947,642	160	.....	1,947,802	100	84
C. B. & Q.	12,383.52	1,916,233	.....	*103,270	2,019,503	163	153
C. R. I. & P. (including C. R. I. & G.)	9,814.70	1,173,978	.....	*12,488	1,186,466	121	118
C. & S.	899.78	67,890	10,187	*13,812	91,889	102	78
D. & R. G. W.	3,285.89	236,791	13,436	*62,914	313,141	95	81
D. & S. L.	313.50	54,463	31	.....	54,494	168	42
Ft. W. & D. C.	953.14	99,555	.....	*5,989	105,544	111	94
Nev. Nor.	190.69	.....	33,074	.....	33,074	173	162
Northwestern Pac.	459.70	.....	81,173	.....	81,173	176	104
S. P.	12,313.67	1,022,559	146,680	.....	1,169,239	95	99
T. P. & W.	276.45	61,958	351	.....	62,309	225	356
U. P.	13,147.04	2,015,335	19,693	.....	2,035,028	155	150
Utah	73.60	5,501	328	*1,742	7,571	102	97
W. P.	1,486.41	273,468	192,492	.....	465,960	313	243
Total—Central Western Region	76,481.22	9,053,564	698,576	210,790	9,962,930	130	124
SOUTHWESTERN REGION:							
B.-R. I.	212.49	18,398	.....	.....	18,398	87	59
G. C. L.							
B. S. L. & W.	139.73	13,586	610	.....	14,196	101	104
N. O. T. & M.	225.39	42,143	5,374	.....	47,517	211	217
St. L. B. & M.	750.67	91,135	.....	*52	91,187	121	115
S. A. U. & G.	360.19	52,796	.....	.....	52,796	146	164

Crossties Laid in Replacement in Previously Constructed Tracks During 1939—Continued

Road	Miles of maintained track	Crossties laid in replacement during year 1939 — Treated	Untreated	Other	Total	Number of wooden crossties renewed per mile of maintained track—1939	Number of wooden crossties renewed per mile of maintained track—1938
I.-G. N.	1,482.75	172,530	.....	.....	172,530	116	105
K. C. S.	1,257.98	179,573	68	.....	179,641	142	137
K. O. & G.	354.40	45,249	150	.....	45,399	128	172
L. & A. (including L. A. & T.)	934.63	139,114	63,263	.....	202,377	216	273
M. V.	382.40	32,617	223	.....	32,840	85	92
M. & A.	357.81	.....	125,443	.....	125,443	351	346
M-K-T	4,089.36	462,142	13,829	.....	475,971	116	99
M. P.	8,975.83	1,562,356	129,152	.....	1,691,508	188	171
O. C.-A.-A.	142.71	8,815	25,638	.....	34,453	241	243
St. L.-S. F.	6,461.74	849,428	71,322	.....	920,750	142	180
St. L. S. F. & T.	234.09	36,512	2,308	.....	38,820	166	152
St. L. S. W.	1,908.94	336,725	.....	*11,328	348,053	182	158
T. & N. O.	5,655.47	763,913	.....	.....	763,913	135	133
T. & P.	2,475.95	256,870	55	.....	256,925	103	94
T.-M.	205.57	22,416	480	.....	22,896	111	135
Total—Southwestern Region	36,608.10	5,086,318	437,915	11,380	5,535,613	151	151
Grand Total—United States	338,875.43	38,253,538	6,446,062	386,793	45,086,393	133	121

* Second hand ties, reapplied. s Ties other than wood. t Tunnel ties.

Ties Laid in Previously Constructed Tracks—1930-1939

	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
Treated ties	49,720,030	39,827,791	29,435,055	26,339,516	31,808,339	33,281,314	36,493,316	37,554,782	33,391,042	38,253,538
Untreated ties	13,618,718	11,658,836	9,740,686	10,947,221	11,481,548	11,028,740	10,454,971	9,594,370	7,497,187	6,446,062
Others	15,030	15,032	14,732	8,979	16,318	16,097	512,239	580,386	474,995	386,793
Total	63,353,828	51,501,659	39,190,473	37,295,716	43,306,205	44,326,151	47,460,526	47,729,538	41,363,224	45,086,393

Systematic Check on Detention

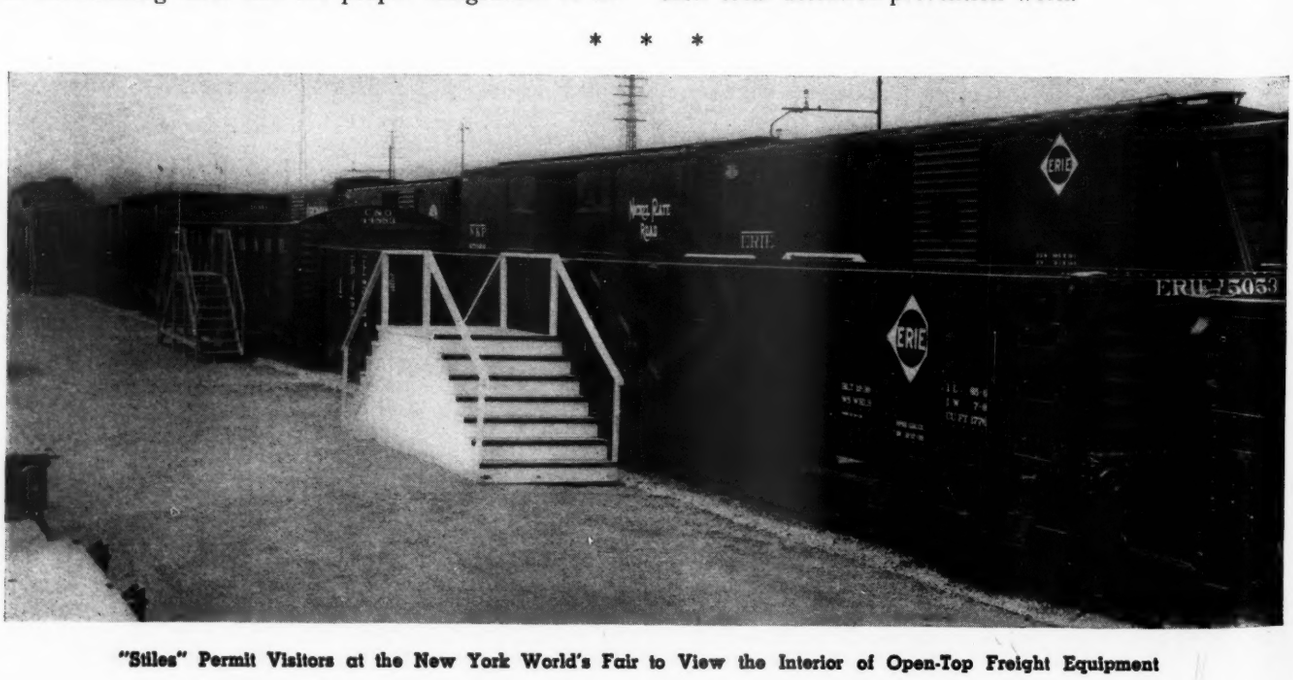
(*Continued from page 1010*)

pared with former methods of substituting complaints and investigations for prevention; and it brings delinquencies to the attention of not only the local supervisory officers, but also interested general officers. It has been found necessary to cover rather fully by instructions the definitions of causes of detentions in order that local interpretations may not interfere with uniform and correct reporting. It is important to have the traveling representative call to the personal attention of the terminal superintendent each exception resulting from his check, as well as any current or habitual failure in connection with any class of movement. The explanation given by the terminal superintendent is quoted in the report of the traveling representative, which is transmitted to the general manager. The obligation to compare notes with the terminal superintendent personally avoids all delay in determining facts and the proper assignment of detention causes so that the effect of the report may not be lost in a series of correspondence exchanges as was sometimes the case under the former set-up.

The fact that the plan automatically brings failures before local supervisory forces and unsatisfactory conditions to the attention of general officers (including the general manager and the chief operating officer whenever the occasion requires) insures effective follow-up from the general-office standpoint.

The best proof of the plan's effectiveness is found in the fact that very few empty or loaded cars are now found awaiting switch-engine service over 24 hours, i. e., appearing on two consecutive yard checks carded for movement at the same location. In addition there is the assurance not only that all reportable causes are covered but also that detention causes are properly charged. There is further proof of the plan's value locally in the personal attention that is accorded to it by terminal trainmasters, and the use they make of it in connection with their local detention-prevention work.

* * *



"Stiles" Permit Visitors at the New York World's Fair to View the Interior of Open-Top Freight Equipment

NEWS

New York to Run Huge Transit Net

With purchase of I.R.T.-B.M.T. transit lines city will run $1,600,000,000 system

The largest publicly-owned transportation system in the country will be operated by the city of New York effective June 12, when unification of all intra-city rapid transit lines will be completed. After that date the municipality, through its Board of Transportation, will own and manage a $1,600,000,000-enterprise totaling 776 track-miles of rapid transit lines (subway, elevated and private way); 437 track-miles of street railways and 80 route-miles of urban bus lines, rivalling the gigantic system administered by the London Passenger Transport Board.

The three major units to comprise the system are: (1) the so-called Independent City Subway which was built by the city and has been operated by the Board of Transportation since its inception in 1932; (2) the Interborough Rapid Transit Company and its leased Manhattan Railway Company which operate a total of 402 track-miles of rapid transit lines and, (3) the Brooklyn-Manhattan Transit Corporation, which operates 293 track-miles of rapid transit lines through its subsidiary New York Rapid Transit Corporation, 437 track-miles of street car lines through the Brooklyn & Queens Transit Corporation and 80 miles of bus route through the Brooklyn Bus Corporation.

The entire transit system will be a $1,600,000,000 enterprise. Of this the city has invested to date about $750,000,000 in its Independent Subway system. In addition, it built a majority of the subway lines hitherto operated by the two private companies and furnished funds under the so-called "dual contracts" for third-tracking of elevated structures, extensions of lines, etc., which investments accounted for an additional municipal investment of $392,457,861 as of June 30, 1939.

For the properties, operating rights, equipment, etc., of the private operators the city is paying a total of approximately $326,000,000, representing 3 per cent 40-year "corporate stock" (which are actually bonds) which it is issuing to security-holders of the private companies under the unification plan. It is to be noted that these bonds are not of the *revenue* type, and constitute a lien not on revenues from transit operations but upon the general taxing power of the city. Of the total, $151,248,187 principal amount is being distributed to Interborough-Manhattan security-holders and $175,000,000 to B. M. T. holders ($148,000,000 for rapid transit and power-station properties and $27,000,000 for surface facilities).

The city took over the B. M. T. properties to be retained on midnight, June 1. At the same time it condemned three elevated routes in Brooklyn (Fulton Street, Fifth Avenue and Third Avenue) and operated the last trains thereon. These structures will shortly be dismantled. It will take over the Interborough-Manhattan properties on June 12. Of these, however, the Ninth avenue and Second avenue (north of 59th street) elevated roads will be abandoned and the "last trains" on the affected lines will be operated at midnight today (June 8).

In taking over these properties, the city will add 28,000 additional employees to its civil service rolls. Of these, all 15,000 I. R. T. and 11,000 B. M. T. employees belong to the Transport Workers Union of America, a C. I. O. affiliate, while the remaining 2,000 B. M. T. men comprising rapid transit motormen, signalmen and towermen belong to the Brotherhood of Locomotive Engineers and Brotherhood of Railroad Signalmen, respectively. Both companies have been parties to closed shop agreements since 1932.

The Independent system has not recognized the closed-shop principle because it was publicly owned and operated. Hence, while a number of its employees (all of whom have civil service status) belong to the T. W. U., the majority do not and the T. W. U. is not recognized as the sole bargaining party.

In taking over the B. M. T. and I. R. T., therefore, the city ran into a jurisdictional snag. The T. W. U. demanded that closed shop be continued for employees of the former private roads; the city held it was illegal to do so. Conferences last April, in which John L. Lewis participated, resulted in compromise whereby the current agreements with the union would be continued subject to a court decision (which will presumably follow a test case to be initiated by an employee.)

Order on Northwest Oil Rates Postponed to January 1

The Interstate Commerce Commission has further postponed from June 7 until January 1, 1941, the effective date of its order in the I. & S. No. 4614 proceeding wherein it dealt with the principal interstate rail and truck rates on petroleum and its products in the Mountain-Pacific Northwest. The commission's decision in this case, which the railroads have taken to court, was reviewed in the *Railway Age* of October 7, 1939, page 533.

Budd's Duties in Defense Post

Learning transport requirements, he will transmit them to A. A. R. to carry out

Reiterating his determination to avoid the development of a situation wherein the federal government might find it necessary to repeat its World-War action of taking over the railroads, President Roosevelt last week defined the role of Ralph Budd as the transportation member of the Advisory Commission of the Council of National Defense and explained how Mr. Budd, as the government's representative, would work with the railroad industry's representative—J. J. Pelley. president of the Association of American Railroads. Meanwhile Mr. Roosevelt also revealed that the Chicago, Burlington & Quincy president's assignment would cover all of the government's transport needs, whether by rail, coastwise, intercoastal or inland waterway carriers, or trucks and buses.

The President talked in the foregoing connection at a Memorial-Day press conference which followed his meeting with the Advisory Commission, the appointment of which was noted in the *Railway Age* of June 1, page 987. As there stated the President said, on May 28, that Mr. Budd's job for the present would be part time, because there are now no kinks in the transportation picture. In the same connection Mr. Roosevelt said on May 30 that transportation facilities are wholly adequate, so Mr. Budd will merely set up machinery to watch the situation. As the government's transport requirements develop, Mr. Budd's job will become one of arranging to take care of a much larger tonnage. The President indicated that he hoped to have the production phase of the defense program in full swing at the end of six months.

Next he proceeded to discuss Mr. Budd's assignment as an illustration of how all members of the Advisory Commission would function. First, however, the President recalled how he had consulted Daniel Willard, president of the Baltimore & Ohio, on the transportation situation last September. He and Mr. Willard agreed, Mr. Roosevelt went on, that they wanted to avoid a situation which might call for government operation of the railroads; because they as well as nearly every railroad executive were of the opinion that if the railroads were again taken over the chances of ever again returning to private operation would be slim.

Coming to the Budd assignment, the

President said he might describe it by saying that Messrs. Budd and Pelley would operate "a double desk"—the former representing the government and the latter the railroads. To Mr. Budd would come a call from the Advisory Commission's industrial-materials member (E. R. Stettinius, Jr., chairman of the board of the United States Steel Corporation) for a certain number of cars to move ore from the Missabe range to the steel plants. Mr. Budd would take such a requisition and pass it along to Mr. Pelley who would in turn arrange with the railroads for the movement. Complaints of congestion coming to Mr. Budd would be turned over to Mr. Pelley and, as Mr. Roosevelt put it, it would be up to the railroads to clear any jams. Meanwhile, however, the President had emphasized how the responsibility for putting the national defense program into action would be that of the Advisory Commission members.

Upon leaving the May 30 meeting with the President, Mr. Budd said that he expected to work very closely with the A. A. R., adding that he could not conceive of any crisis in transportation. If he were to make any general comment, the C. B. & Q. president went on, he could only repeat what had already been said—that there is no transportation problem, the feature of the transportation situation at present being the surplus of facilities and insufficiency of traffic.

Reiterating previous declarations that the railroad industry could meet any large traffic increase with an adequate supply of cars and could keep ahead of any demand for cars, J. J. Pelley, president of the Association of American Railroads, revealed last week that a new canvass is now being made of the equipment situation. Mr. Pelley made his statement following May 29's Washington, D. C., meeting of the A. A. R. board of directors at which Mathew S. Sloan, chairman and president of the Missouri-Kansas-Texas, was elected to fill the vacancy on the board created by the recent resignation of J. M. Kurn, trustee of the St. Louis-San Francisco.

With reference to the equipment survey, Mr. Pelley said that the nine replies received up to that time showed that certain roads planned within the next two months to place orders for more than 3,000 new cars. Also, attention was called to the fact that during the first four months of this year, the railroads installed 27,809 new freight cars, while 17,460 others were on order as of May 1. The A. A. R. directors, Mr. Pelley said, were pleased with the appointment of Ralph Budd, president of the Chicago, Burlington & Quincy, as the transportation member of the Advisory Commission to the Council of National Defense. He added that the A. A. R. would co-operate fully with Mr. Budd.

Pension Act Amendment

The Senate on May 28 passed the House-approved House Joint Resolution 496 to exempt from the Railroad Retirement Act non-citizens whose governments prevent deductions from their wages of the taxes provided in the Carriers Taxing Act. The measure is designed specifically to remove Mexican employees of the Pullman Company from coverage under the pension system. In adopting the House measure the Senate postponed indefinitely Senate Joint Resolution 234 which was identical.

Pipe Line Bill Gets a Hearing

Hearings on S. 3753 which would require certificates of convenience and necessity from the Interstate Commerce Commission for new construction and extensions of pipe lines were held on May 29 and June 2 before a Senate interstate commerce subcommittee headed by Senator Johnson, Democrat of Colorado, sponsor of the measure. Judge R. V. Fletcher, vice-president and general counsel for the Association of American Railroads; T. J. McGrath, counsel for the Railway Labor Executives Association; and J. G. Kerr, chairman of the Southern Freight Association, defended the merits of the bill, while a number of oil producers and pipe line operators led by Fayette B. Dow, representing the Interstate Pipe Lines, Pennsylvania Grade Crude Oil Association and the Western Petroleum Refiners Association, sharply attacked it.

The railroads and railroad labor contended that they needed the bill in order that railroad revenues and railroad jobs could be preserved and pointed out that all other common carriers except water lines are forced to obtain certificates of convenience and necessity before they can operate. On the other hand, the oil men argued that pipe lines were more economical than rail transportation, and the independent producers held that if the bill were to become law it would cause stagnation in the oil industry, would destroy the initiative of "wild catters" to develop new fields, and would discriminate against new producers who would not have access to present pipe lines.

Judge Fletcher led off for the proponents of the bill by saying that the A. A. R. advocated it. He pointed out that the language of the measure followed the language of paragraphs 18, 19, and 20 of section 1 of the Interstate Commerce Act. The A. A. R. general counsel also told the subcommittee that, as written, pipe lines would not be prohibited from abandoning lines without commission approval.

After pointing out that pipe lines are common carriers and were first regulated in 1906 by the Hepburn Act, Judge Fletcher went on to say that it was only fair that they should also have to obtain certificates for the extension of new lines since all other common carriers such as railroads, trucks and buses, air lines, telephone, telegraph, radio and natural gas companies were required to first show a necessity for their extended services before construction could be undertaken.

Mr. Kerr told the subcommittee that one of the effects of the bill, if passed, would be to force such companies as the Southeastern Pipe Line Company to obtain a certificate of convenience and necessity before it could begin the construction of a gasoline pipe line which it now has under construction from Port St. Joe, Fla., to Atlanta, Ga. and Chattanooga, Tenn. He also said that Standard Oil of Louisiana and Shell proposed to build a gasoline line from Baton Rouge, La., to the southern part of Virginia. If these lines are completed, he argued, the loss in revenues to the Southern railroads will be very heavy.

After stating that the large part of most of the oil companies' earnings come from transportation, Mr. Kerr contended that the general public is getting no benefit from the low cost of pipe line transportation because of the fact that the prices of gasoline are based on the refinery price plus the railroad freight rate. When the gasoline is transported either by pipe line, water or by truck, the company pockets the difference between the actual cost of transportation and the quoted rail rate. Since no benefits accrue to the public, Mr. Kerr contended, the oil companies should be forced to show public convenience and necessity before authority is granted to invade a territory which is already adequately served by rail facilities.

Mr. McGrath's argument followed the same general lines as did Mr. Kerr's. He contended that there were plenty of facilities for the carrying of gasoline and other refined oil products and that before a pipe line is authorized to go into a new field something more should be demonstrated than merely the fact that the company would save some money over paying the railroad rate. He also charged that existing pipe lines are not being operated as common carriers because of the fact that their minimum tender is so large that none of the independents are able to take advantage of their facilities.

After admitting that four-fifths of all the crude oil is now carried by pipe lines and that the railroads could not compete on an economic basis with crude lines, Mr. McGrath told the subcommittee that his organization was especially concerned with what he called the growing menace of gasoline lines. To his way of thinking the country was getting no benefit from the construction of new gasoline pipe lines. He also contended that the oil companies were making money from the pipe lines and were not passing the savings on to the public in the form of lower prices for gasoline and other refined oils.

As a preface to his statement to the subcommittee Mr. Dow said that if the railroads had done as well in holding other commodities to the rails as they had done with refined petroleum products, employment in the railroad industry today would be entirely satisfactory.

After saying that pipe lines now transport 97 per cent of the crude oil, Mr. Dow proceeded to discuss the future of gasoline lines. He contended that the railroads could meet the competition of less costly forms of transportation only by lower rates and better service and not by legislation. Pipe line competition can be met by the railroads only by adopting a realistic attitude towards it, he added. Although he did not say so in so many words, what he implied to the subcommittee was that the railroads must be realistic and reduce rates to a level low enough that the oil companies will not have the incentive to construct new pipe lines.

Mr. Dow also charged that the bill was sponsored by the railroad industry and went on to say that "it cannot benefit the railroads unless it prevents a pipe line

from being built." After saying that there is a great deal of misunderstanding regarding pipe lines, Mr. Dow cited a recent Supreme Court of the United States case of Sanders vs. the Federal Communications Commission in which the court held that the jeopardizing of a person's economic interests was no reason for a regulatory agency to refuse to grant a competitor a license to operate a radio station. He went on to hold that the same principle would operate against the railroads if they tried to get the commission to hold up the construction of pipe lines simply because their construction might injure the railroads' revenues.

Among the other oil men opposing the bill were W. J. Holloway, representing Governor Leon C. Phillips of Oklahoma; J. O. Seth, representing Governor John O. Miles of New Mexico; William R. Wallace, vice-president of the Utah Oil Refining Company of Salt Lake, Utah; John D. Gill, economist of the Atlantic Refining Company, who contended that pipe line charges on crude oil are 35 per cent lower than rail rates; J. C. Hunter, president of the Mid-Continent Oil & Gas Association; George C. Gibbons, executive vice-president of the Texas Mid-Continent Oil & Gas Producers' Association; Jack Blalock, representing the Independent Petroleum Association of Texas; Theodore Gore of the Kansas Independent Oil & Gas Producers' Association; and D. G. Powell of the Oklahoma Stripper Wells Association.

Chairman Johnson announced that after Chairman Eastman of the Interstate Commerce Commission had been heard in executive session, the hearings would be closed. The Governor of Louisiana was granted permission to file a written statement opposing the bill.

Club Meeting

The Eastern Car Foremen's Association will hold its eighth annual golf tournament and field day at the Racebrook country club, New Haven, Conn., on July 11.

Interstate Commerce Acts Annotated

The Senate has passed Senate Resolution 259 which provides for bringing up to date the compilation entitled "Interstate Commerce Acts Annotated."

Proposes Workmen's Compensation for Motor Carrier Employees

Representative Edelstein, Democrat of New York, has introduced H. R. 9951 to provide workmen's compensation for employees of carriers engaged in interstate transportation by motor vehicle.

"National Defense" Rivers and Harbors Bill

The House of Representatives on June 3 passed H. R. 9972, the $24,823,000 rivers and harbors authorizations bill which was introduced by Representative DeRouen, Democrat of Louisiana, as a national defense measure after President Roosevelt had vetoed the $109,985,450 rivers and harbors bill (H. R. 6264) with a promise to approve authorizations for projects "of national defense value." The report on H. R. 9972 stated that the House committee on rivers and harbors obtained from the Army Engineers a list of projects of "immediate value to the national defense," and those are the ones covered by the bill.

The largest item is the $7,074,000 which would be authorized for work at Los Angeles, Calif., and Long Beach harbors; next in turn comes $3,875,000 for San Diego, Calif., harbor; $2,700,000 for work at Corpus Christi, Tex.; $2,300,000 for Boston, Mass., harbor; $2,000,000 for the Kennebec river, Me.; and $1,000,000 for Oswego, N. Y., harbor.

Railway Business Women to Hold National Convention

The first national convention of the Railway Business Women's Association will be held at Karst Ranch, Gallatin Canyon, Mont., on June 17 to 22. A banquet will be held on June 20 with Margaret T. Stevens, associate editor of the Baltimore & Ohio magazine, as the principal speaker.

Tennessee-Tombigbee Becomes National Defense Project

Representative Rankin, Democrat of Mississippi, has introduced H. R. 9916 "to provide for the national defense, to aid interstate commerce by navigation, and to promote the general welfare by constructing a waterway connecting the Tombigbee and Tennessee rivers."

750 Use Rail-Auto Plan in 27 Days

Seven hundred and fifty calls for automobiles under the western railroads rail-auto service plan which went into effect on May 1 were received during the first 27 days of May. These calls were made in 75 of the cities in which the service is available. The average charge per call was $7.50, while the largest was $175.

N. Y. Railroad Club Outing

The New York Railroad Club will hold its annual outing at the Westchester Country club, Rye, N. Y., on Thursday, June 20. Outside sports events will include a golf tournament, baseball, tennis and the "midway." Dinner will be served at 7:30 p. m. F. E. Williamson, president, New York Central, is general chairman of the outing.

Bills To Exempt Captive-Mine Employees from Pension Act

Bills to exempt employees of railroad-owned or railroad-controlled coal mines from coverage under the Railroad Retirement Act and Railroad Unemployment Insurance Act have been introduced in the House of Representatives by Chairman Lea of the House committee on interstate and foreign commerce and in the Senate by Chairman Wheeler of the Senate committee on interstate commerce. The House bill is H. R. 9955, while the Senate bill, sponsored by Senator Schwartz, Democrat of Wyoming, as well as Mr. Wheeler, is S. 4070.

S. 4070 was reported favorably from the Senate committee on June 3. The report notes that the Railroad Retirement Board found itself compelled by the language of the present acts to conclude that the employees of the captive mines were covered. Nevertheless all interested parties—the Board, railroads, railroad employees, the mine workers, the federal security administrator and state unemployment compensation administrations—believed "that as a matter of policy such coal-mining activities . . . should for purposes of a social-insurance program and for purposes of labor relations be covered by the system of laws applicable to coal mining generally rather than the system of laws applicable to the railroad industry." Believing "such a policy to be sound" the committee recommended enactment of the bill.

Senate Gets Fourth Part of Rail Combination Study

Senator Barkley, Democrat of Kentucky, acting for Senator Wheeler, Democrat of Montana, has submitted to the Senate for printing the fourth part of the rail finance committee's report on railroad combination and consolidation in the eastern region. Printing of the entire report had been previously authorized by the Senate.

Senate Bill to Exempt State-Owned Roads from Pension Act

Senator Mead, Democrat of New York, has introduced S. 4093 "to exempt certain State owned and operated carriers and employees of carriers from the provisions of the Railroad Retirement Act of 1937." A companion bill, H. R. 9636, was previously introduced in the House by Representative Byrne, Democrat of New York.

Senate Gets Forwarder Bill

Senator White, Republican of Maine, has introduced S. 4096 to apply various sections of the Motor Carrier Act to freight forwarders. As noted in the *Railway Age* of June 1, page 985, a similar bill, H. R. 9888, was previously introduced in the House by Chairman Lea of the House committee on interstate and foreign commerce.

Ecuador to Buy U. S. Rail Equipment

The Export-Import Bank of Washington has approved a loan to Ecuador in the amount of $1,150,000, of which approximately $200,000 will be used for the purchase of railway locomotives and cars manufactured in the United States, according to an announcement by Jesse H. Jones, Federal Loan Administrator.

A. A. R. Would Bring Truck Rates Into General Probe

Members roads of the Association of American Railroads have asked the Interstate Commerce Commission to institute as to motor carrier rates a general investigation similar to the pending No. 28300 probe of the railroad class rate structure. The petition states that such broadening of the inquiry is necessary if the investigation is to accomplish worthwhile results.

Freight Car Loading

Revenue freight car loading for the week ended June 1 totaled 639,126 cars, the Association of American Railroads announced on June 6. This was a decrease of 48,364

cars, or 7 per cent, below the preceding week, due to the Memorial Day holiday, an increase of 75,817 cars, or 13.5 per cent, over the corresponding week last year, and an increase of 136,509 cars, or 27.2 per cent, over the comparable 1938 week.

Loadings of revenue freight for the week ended May 25 totaled 687,490 cars. This was an increase of 8,519 cars or 1.3 per cent above the preceding week, an increase of 63,948 cars or 10.3 per cent above the corresponding week in 1939, and an increase of 125,414 cars or 22.3 per cent above the same week in 1938.

The summary as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings

For Week Ended Saturday, May 25

Districts	1940	1939	1938
Eastern	146,814	131,361	124,577
Allegheny	146,616	121,527	102,781
Pocahontas	48,244	41,766	36,588
Southern	99,337	90,909	84,343
Northwestern...	108,831	99,833	77,044
Central Western.	94,667	95,350	92,628
Southwestern...	42,981	42,796	44,115
Total Western Districts	246,479	237,979	213,787
Total All Roads	687,490	623,542	562,076
Commodities			
Grain and grain products	29,432	33,910	33,344
Live stock	10,506	10,706	12,048
Coal	116,557	96,242	98,078
Coke	8,971	4,834	4,375
Forest products.	34,665	29,759	26,841
Ore	59,019	43,670	20,431
Merchandise l.c.l.	148,906	152,859	148,526
Miscellaneous...	279,434	251,562	218,433
May 25	687,490	623,542	562,076
May 18	678,971	612,888	545,789
May 11	680,657	554,644	541,808
May 4	665,510	572,025	536,149
April 27	644,520	585,190	543,089
Cumulative Total, 21 Weeks ..	13,371,831	12,136,538	11,470,974

In Canada.—The holiday (May 24) reduced the car loadings for the week ended May 25 to 49,919, as compared with 53,063 in the previous week, according to the summary of the Dominion Bureau of Statistics. Loadings a year ago totaled 41,572.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
May 25, 1940.....	49,919	24,839
May 18, 1940.....	53,063	26,128
May 11, 1940.....	52,766	25,657
May 27, 1939.....	41,572	19,266
Cumulative Totals for Canada:		
May 25, 1940.....	1,013,302	518,209
May 27, 1939.....	894,483	446,019
May 28 1938.....	929,804	447,681

More Time to Complete Senator Wheeler's Rail-Finance Reports

Work in connection with the Senate committee on interstate commerce's investigation of railroad financing may continue through the next Congress (the 77th) under Senate Resolution 240 which has been adopted by the Senate. The committee requested the extension to give its staff additional time for the completion of reports.

Study of Productivity and Labor Costs In Transportation

The Senate has passed House Joint Resolution 265, authorizing the Bureau of Labor Statistics "to make continuing studies of productivity and labor costs in manufacturing, mining, transportation, distribution and other industries." As noted in the *Railway Age* of April 27, page 766, the measure had previously been adopted in the House.

New York Central Scenes to be Televised June 11

A 20 to 25 minute television broadcast of a sound motion picture showing scenes at the New York Central's Harmon (N. Y.) engine terminal will be presented by the National Broadcasting Company on June 11, at 3:30 p. m. The motion picture, entitled "Round House to Road Bed," was produced by Frederick W. Beach, technical editor, "Movie Makers" magazine, New York, as a personal project.

Court Rules Tips to Red Caps Are Not Wages

In a suit brought by A. J. Pickett, general chairman of the Brotherhood of Railway Clerks on the Missouri-Kansas-Texas, in behalf of the Red Caps employed by the Union Terminal at Dallas, Tex., Federal Judge William H. Atwell at Dallas ruled on May 29 that tips are not meant to be wages and cannot be so considered in applying the provisions of the wage-hour law. In his ruling, back wages and liquidated damages were awarded to 41 Red Caps.

Railroad Doctors to Meet June 10-11

The twentieth annual meeting of the Medical & Surgical section, Association of American Railroads, will be held at the Pennsylvania hotel, New York, on June 10 and 11. The chairman of the session will be Dr. Harvey Bartle, chief medical examiner, Pennsylvania. An informal dinner for the delegates and their wives will be held in the Southeast ballroom, on the evening of June 10, at which time C. H. Buford, vice-president, operations & maintenance department, A. A. R., will speak.

S. P. Establishes Another "Economy" Train

An "economy" train, the "Beaver," will be placed in service for the summer months by the Southern Pacific on June 8, between San Francisco, Cal., and Portland, Ore. This new coach-tourist train will consist of streamlined, air-conditioned chair and reclining chair cars, and Pullman tourist cars, a lounge car and a dining car which will serve three meals a day for 90 cents as well as higher priced plate meals. It will leave San Francisco at 6:40 p. m., will arrive in Portland at 3:45 p. m. the next day, while returning it will leave Portland at 5:45 p. m. and will arrive in San Francisco at 1:55 p. m.

Baldwin Opens New Dispensary

The Baldwin Locomotive Works has opened a new dispensary with complete equipment for the treatment of injuries resulting from industrial accidents. The dispensary occupies a six-room suite covering 1,700 sq. ft. on the first floor of the office building at the company's Eddystone, Pa., plant. A full-time doctor and registered nurse are in attendance and the dispensary will remain open under the direction of a trained nurse whenever night shifts are employed in the plant.

A novel feature of the dispensary is a dental room where the employees, if they desire, may have dental work done, paying for the service at a moderate cost. All other facilities, including emergency dental work resulting from an accident, are available without charge.

Announcing the opening of the new facilities, Charles E. Brinley, president of the Baldwin Locomotive Works, called attention to the fact that Baldwin's accident frequency last year was 28 per cent lower than in 1938 on a man-hour basis and that the severity of accidents as measured by working days lost was reduced by more than 50 per cent. "We hope," he continued, "to lower still further the number of working days lost through accidents and sickness, thus helping both the employees and the company."

C. E. Hochstedler Dies

C. E. Hochstedler, traffic director of the Chicago Association of Commerce since 1928, died in Chicago on June 2, following complications resulting from injuries incurred in a fall last October. Mr. Hochstedler was born in 1881 and began his career as a telegraph operator in 1899. From 1933 to 1936, while on a leave from the Association, he was western traffic assistant to the federal co-ordinator of transportation.

Court Orders Reargument of N. P. Land Grant Case

The United States Supreme Court, at its June 3 meeting, ordered the case of the United States v. Northern Pacific Railway Company et al. reargued at its next term. The issue in the case is whether the withdrawal by the United States of land from the so-called indemnity lands granted the railroad under the Land Grant Acts was valid, and whether the railroad is entitled to compensation for the lands withdrawn. Previously the United States District Court for the Eastern District of Washington had decided in favor of the government.

New Member on I. W. C. Board of Advisors

Secretary of Commerce Harry L. Hopkins has announced the appointment of Frank E. Bourgeois of New Orleans, La., to be a member of the Board of Advisors of the Inland Waterways Corporation. He succeeds A. W. Mackie of Kansas City, Mo., who has resigned.

The announcement points out that Mr. Bourgeois is an official of the New Orleans Public Service Company and for a number of years has been active in civic affairs in his community. He is further identified as an officer of the Mississippi Valley Association.

Petroleum Rates in Western Trunk-Line Territory

The Interstate Commerce Commission has suspended from June 1 until July 1 the operation of tariffs whereby the Chicago, Rock Island & Pacific, the Chicago & North Western and other roads propose to reduce carload rates on petroleum products from pipe-line and water terminals in Western trunk-line territory to various destinations in that territory. Examples of

the reductions sought are the proposed cut from 17 cents per 100 lb. to 13 cents on shipments from Des Moines, Iowa, to Mason City, and from 34 cents to 27.5 cents on shipments from Superior, Wis., to Grand Forks, N. D. The proceeding is docketed as I. & S. No. 4791.

Senate Committee Approves Pullman Conductors' "Make-Work" Bill

With an amendment limiting its applicability to runs of 100 miles or more the Senate committee on interstate commerce has ordered a favorable report on the Pullman conductors' "make-work" bill—S. 3798, sponsored by Senator Minton, Democrat of Indiana. As modified by the amendment the bill would require the Pullman Company to assign a conductor to every train carrying revenue passengers in a Pullman car on a run of 100 miles or more between 6 p. m. and 8 a. m. A companion bill—H. R. 9406—has been introduced in the House by Representative Crosser, Democrat of Ohio.

A. A. R. Asks Dismissal of Anti-Trust Action

The Association of American Railroads has filed a petition in the United States District Court for the District of Columbia asking that the anti-trust case against it be dismissed. Among the principal arguments listed in the petition was the one that the resolution against the publishing of joint rates and through routes with motor carriers had been rescinded. The Department of Justice had brought the case against the A.A.R. and its member roads alleging that they had conspired to prohibit the establishment of through routes and joint rates with motor carriers in violation of the Sherman Anti-Trust Law.

Honor Jeffers for 50 Years' Service

Business and labor leaders joined Union Pacific Old-Timers Club at Omaha, Neb., on June 1 to help William M. Jeffers, president of the U. P., celebrate the completion of 50 years with that railroad. H. A. Scandrett, trustee of the Chicago, Milwaukee, St. Paul & Pacific, acted as toastmaster at a banquet attended by 2,500 diners and another 5,000 spectators. Speakers included W. A. Harriman, chairman of the U. P., and D. B. Robertson, president of the Brotherhood of Locomotive Firemen & Enginemen.

A feature of the program was the presentation to the railroad of an iron lung by south-central district employees. It will be used in the territory served by the railroad.

Central Western Shippers Advisory Board Meets at Omaha June 18-19

The Central Western Shippers Advisory Board will hold its 18th annual and 41st regular meeting at the Hotel Fontenelle in Omaha, Neb., on June 18 and 19. The first day will be devoted to freight loss and damage prevention and the following day the regular advisory board meeting will be held, at which meeting, the readiness and ability of the railroads to meet the transportation demands of a national emergency will be given major consideration. Both meetings are open to the public and all producers, shippers and receivers of freight. The meeting on June 18 will be addressed by C. H. Dietrich, executive vice-chairman of the Freight Claim division of the A. A. R., on The Value of Freight Claim Prevention, and by F. S. Malone, traffic manager of Miller Cereal Mills, Omaha, on Shippers and Receivers Interests in Perfect Shipping. The following day, W. D. Lane, president of the Eggerss-O'Flyng Company, Omaha, will speak on Industrial Development and Its Relation to Railroads, and Carl R. Gray, Jr., executive vice-president of the Chicago, St. Paul, Minneapolis & Omaha, will give an address on Wartime Transportation.

Bible Class Has "Railroad Sunday"

A "Railroad Sunday" was arranged by the Business Men's Bible Class of the First Baptist Church of Kansas City, Mo., on May 19, in recognition of its obligation to railroad men. The program included a concert by the Central High School Band, an introduction of special railroad groups, a scripture lesson, and a speaker. Because of the large attendance expected, (1,931 men were present) Ivanhoe Masonic Temple was used. It was decorated with more than 200 posters and pictures furnished by 29 railroads. In the lobby were four miniature trains that depicted the trend in transportation from early days, while on each side of the stage were large crossing signals. A model locomotive operated by compressed air was displayed in front of the stage.

The Canadian Roads in April

In April the Canadian National had gross revenues totaling $17,666,164 (up $3,213,816 over last year). Operating expenses were $15,977,183 (up $1,848,464) and net operating revenues were $1,688,981 (as compared with $323,583 last year). For the four months, gross was $71,040,279 (up $15,390,536), expenses were $63,913,337 (up $6,297,239) and net operating revenues were $7,126,942 (as compared with a $1,966,355 deficit last year).

The Canadian Pacific's gross for April was $12,043,923 (increase of $1,930,322); expenses were $10,097,844 (increase of $897,392); and operating net was $1,946,079 (increase of $1,032,930). For the four months gross was $47,681,442 (increase of $8,222,051); expenses were $40,432,874 (increase of $3,354,552); and operating net was $7,248,568 (increase of $4,867,498).

Santa Fe Completes Second Main Track to Coast

On June 1, the Atchison, Topeka & Santa Fe placed in service 23 miles of newly constructed second main track between Joseph City, Ariz., and Double Track Junction, which completes the last link of two main tracks for this road from Chicago to the Pacific Coast. The Santa Fe first commenced operation over 17 miles of track between Topeka, Kan., and Carbondale in June, 1869. Construction to the Coast (San Diego, Cal.) was completed in February, 1885, and construction eastward into Chicago was completed in 1887. Double tracking of the Santa Fe main line was begun in 1897 from Florence, Kan., to Cedar Point. The newly completed link was laid with 131-lb. rail and 9-ft. ties, and involved the construction of two steel bridges one 300 ft. long and the other 240 ft. long.

Stockholders Fight I. C. C. Reorganization Plans

On June 3, objections were filed on behalf of the common stockholders of the Missouri Pacific and the common and preferred stockholders of the Chicago & North Western in a move to block the reorganization plans of the Interstate Commerce Commission which would wipe out the above-mentioned equities of the shareholders of these two roads.

For the Missouri Pacific plan, objections were filed with Federal Judge J. Moore at St. Louis, Mo., by Luther M. Walter, attorney for the protective committee for the common stockholders. The petition charged that the failure of the I. C. C. to determine the value of the road and certify this value to the court, as required by law, makes the reorganization plan illegal. The petition also stated in part that the new capitalization should be not less than $747,201,228; that the present stock is not without value; that holders should participate in the new securities and requested that the plan be given back to the commission to determine and certify the value of the railroad.

The objections to the I. C. C. approved reorganization plan for the North Western, were filed before Federal Judge John P. Barnes, Chicago, on behalf of committees representing holders of common and preferred stock and various mortgages. Under the plan approved by the Commission, which is awaiting approval or disapproval by Judge Barnes, neither the preferred nor common stockholders would participate. Hearings on the plan will begin on June 10.

I. C. C. Changes Mind on Southern Affiliate's Naval Stores Rates

The Interstate Commerce Commission on May 29 rescinded its order of May 20 and thereby left its suspension order of March 8 operative against tariffs whereby the New Orleans & Northeastern (part of Southern) is proposing to bring its Hattiesburg-New Orleans and Laurel-New Orleans rates on naval stores into line with other adjustments between Southern Mississippi points and Gulf of Mexico ports which were approved by the commission in the general Naval-Stores-to-Gulf-Ports case.

As noted in the *Railway Age* of June 1, page 983, the May 20 order vacated the March 8 suspension order. The commission's change of heart nine days later came "upon further consideration of the record . . . and of petition of the Gulfport Port Commission, et al." The proceeding is docketed as I. & S. No. 4772.

Cloudburst Damages Railroads in Nebraska

On June 4, a cloudburst in the northeast corner of Nebraska variously reported as from 6 to 7 inches of rainfall caused the tributary streams of the Missouri river in

that area to rise suddenly and cause a number of deaths from drowning and extensive damage to the railroads in that area. On the Chicago, Burlington & Quincy line between Ashland, Neb., and Sioux City, Iowa, an area about 23 miles long between Homer, Neb., and Lyons, was damaged, with about 7½ miles of track washed out or washed off the embankment. The bridges on this line were reported in good condition with the exception of minor damage at the ends and one bridge reported slightly out of line. The depot and stockyards at Winnebago, Neb., were washed away.

The Chicago & North Western line between Fremont, Neb., and Norfolk along the Elkhorn river was washed out in several places for about 3,000 ft., and a total of about 12 spans of pile trestle at various locations were washed out. Similar damage was reported on the Chicago, St. Paul, Minneapolis & Omaha line, south of Nacora, Neb. All lines are expected to be repaired in from two to four days.

Fiftieth Annual Meeting of Railway Accounting Officers

The June 17-20 meeting of the Accounting Division, Association of American Railroads, at the Greenbrier, White Sulphur Springs, W. Va., will comprise the fiftieth annual meeting of railway accounting officers, according to the Agenda which is now being distributed. As usual the convention proper will be a three-day affair, following the day (June 17) given over to meetings of the principal committees which the members are urged to attend.

The principal addresses at the June 18 session will be delivered by Chairman J. W. Newell, chief accounting officer of the Wabash, and George O. May, senior partner, Price Waterhouse & Company. The program for the following day will get under way with the address of E. H. Bunnell, vice-president of the Association of American Railroads in charge of its Finance, Accounting, Taxation and Valuation Department; while the June 20 session will be addressed by W. J. Kelly, assistant to vice-president, Traffic Department, A. A. R. The Agenda, a 229-page document, contains the committee reports and other pertinent material and information.

Grade Crossing Authorizations Cut

Having obtained the cooperation of the House leadership by adopting an amendment which cut all authorizations by 25 per cent, the House committee on roads on June 3 was able to obtain a suspension of the House rules for passage of H. R. 9575, the bill carrying federal-aid highway authorizations for the fiscal years ending June 30, 1942, and June 30, 1943. The 25 per cent cut brings the authorization for grade crossing elimination and protection work in each of the two fiscal years down from $50,000,000 to $37,500,000; the total amount authorized for each of the fiscal years for all work is down from $238,000,000 to $178,500,000.

The bill as introduced was outlined in the *Railway Age* of May 4, page 794, while the roads committee's report on it was noted in the issue of May 11, page 831. Explaining the 25 per cent cut, Chairman Cartwright told the House that the committee took such action at a special meeting on May 29, "with the understanding that the House leadership would cooperate in arranging for the bill to be considered and passed today under suspension of the rules."

"It is understood that with these reductions the bill will not be in conflict with the program of the President," Mr. Cartwright went on. "In other words, the committee felt that three-fourths of a loaf was better than no loaf at all." With reference to grade crossings, he said that the bill provides for continuation of the program under which 14,000 crossings were eliminated or protected last year, adding that there still remain "about 230,000 dangerous grade crossings." During the debate on the bill there was considerable talk of the relation of highways to national defense.

Retirement Board Would Pay for Prior Service Records

Payments to railroads for the work of bringing up to date the service records of prospective applicants for annuities under the Railroad Retirement Act would be authorized by Senate Joint Resolution 267 which has been introduced by Senator Johnson, Democrat of Colorado, and ordered reported favorably from the Senate Committee on Interstate Commerce. The resolution makes available for use within the period from next July 1 until June 30, 1943, $9,000,000 from the Railroad Retirement Account; and authorizes payment of up to 50 cents per man-year for the compilation of records of service prior to January 1, 1937.

The resolution also provides that the Railroad Retirement Board may discontinue the payments and assign its own employees to gather the data in the case of an employer which "fails to exercise due care and diligence in carrying out its duties." Moreover no payments are to be made with respect to any item concerning the record of employees 65 years of age or over who have applied for annuity or with respect to any report not furnished on or before June 30, 1943.

As noted in the *Railway Age* of July 15, 1939, page 122, a previous attempt of the Retirement Board to have these prior service records compiled as a Works Progress Administration relief project fell through when the Brotherhood of Railway Clerks withdrew its support.

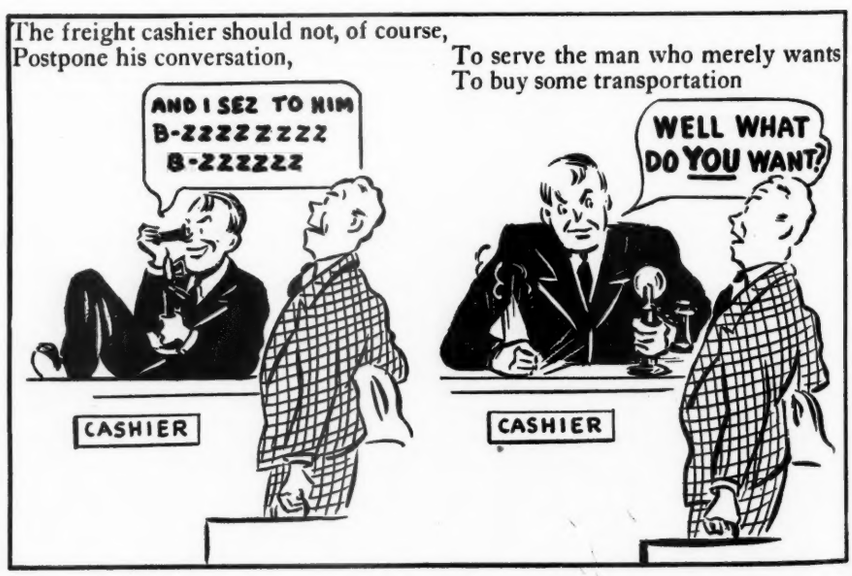
Labor Hasn't Yet Revived S. 2009

No agreement whereby S. 2009, the omnibus transportation bill might be revived was reached at Senator Wheeler's May 29 conference with representatives of railroad labor, although it was stated that further meetings would be held. Attending the conference were representatives of the transportation brotherhoods which joined with the waterway bloc in support of the motion which sent the bill back to conference as well as representatives of the non-operating employees who opposed the recommittal move.

At the close of the conference Senator Wheeler said he could make no statement, although he did expect further meetings with the labor representatives. He said on June 5, however, that he had up to that time no definite arrangements for such further meetings; while Chairman Lea of the House committee on interstate commerce had heard nothing definite about further sessions of the conference committee.

B. & M. Tells Employees How to Lose Friends and Alienate People

The Boston & Maine-Maine Central have issued a 17-page, pocket-size booklet entitled "13 Things People Laugh At (Or Do They?)" which pokes fun at discourtesies and foibles of which some railroad employees are occasionally guilty. A humorous sketch and a quatrain of verse describe each major "sin." As described, a few of the things which passengers don't like are imperious conductors, grouchy engineers, unkempt ticket agents, "deadheads" who take the best seats in the best



This Typical Page From the Boston & Maine-Maine Central Employee-Behavior Booklet Pokes Serious Fun at an Attitude which Occasionally Has Been Known to Exist in Railroad Offices

coaches, and the boys who drive baggage trucks amidst a welter of waiting passengers shouting, "Heads up."

Would Liberalize Unemployment Insurance Benefits

The Senate interstate commerce committee has favorably reported to the Senate S. 3920, Senator Wagner's bill, introduced at the request of organized railroad labor, which would increase unemployment insurance benefit payments under the Railway Unemployment Insurance Act by at least 100 per cent and would make several changes in the procedure of administering the law. A detailed description of the bill was given in the *Railway Age* of May 25, page 952, in discussing the action of the subcommittee in reporting the measure to the full committee.

Senator Gurney, Republican of South Dakota, filed a minority report on the bill for himself and Republican Senators White of Maine, Austin of Vermont, Tobey of New Hampshire, and Reed of Kansas, in which he criticizes the majority's action and advocated the passage of his own bill, S. 3925, which represented the carriers' views on the liberalization of the law. As pointed out at hearings on the measure, Senator Gurney's bill would have increased benefit payments by some 25 per cent and would have set up a merit rating system so that the tax on the railroads' payroll would have been gradually decreased if their employment record continued to be as satisfactory as it has been since the law went into effect some two years ago.

Criticizing the majority's action in accepting railway labor's bill and rejecting that of management the minority said that in its judgment "now is not the time to experiment with changes in a statute that has been in operation less than one year." "Certainly," the report continued, "changes as radical and as one-sided as those involved in S. 3920 are not warranted. If, in view of the attitude of the parties directly concerned in the matter, it is regarded as mandatory that some change be made, we feel that it should be one that contains at least some possibility of benefit to the railroads as well as a definite enlargement of the benefits payable to their ex-employees. For that reason we recommend the passage of S. 3925, with certain modifications, in preference to S. 3920."

The minority went on to say that it made this recommendation to the Senate "because we definitely feel that our railroads are in the front line of our national defense. While we also realize that the well-being of railroad employees is definitely in the interest of national defense, we are convinced that we cannot hope to safeguard their well-being by any action which completely ignores that of their employers."

Freight Station Program Announced

More than 700 freight station supervisors and local agents are expected to attend the annual meeting of the Freight Station section, Association of American Railroads, to be held in the Pennsylvania hotel, New York, June 11 to 13, inclusive. At the morning session of June 11, addresses will be presented by P. W. Johnston, general manager, Erie; C. H. Buford, vice-president, Operations & Maintenance department, A. A. R.; W. P. Hedden, chief, Bureau of Commerce, Port of New York Authority, and E. Pettit, president, Freight Agents' Association of New York.

The afternoon meeting will be in charge of the committee on station traffic with Chairman G. R. Littell, terminal agent, Baltimore & Ohio, Cleveland, presiding. Subjects for discussion will be co-ordination of rail and truck, freight consigned to various consignees in care of truck lines or carloading and distributing companies at intermediate points, and station courtesy and traffic solicitation. At the following morning session G. C. Randall, chairman, General Committee of the Operating-Transportation division, A. A. R., will present the opening address following which the Committee on Station and Terminal Operation, of which J. P. Moews, Illinois Central agent at Memphis, Tenn., is chairman, will take up consideration of pick-up and delivery, use of inter-communication equipment in handling of l. c. l., car efficiency and classification.

The morning session of June 13 will be devoted to the report and discussion of the Committee on Station Office Operation, W. C. Leitner, Rock Island agent at Peoria, Ill., chairman. At the closing session, H. L. Denton, Baltimore & Ohio general superintendent of police, will be the principal speaker. He will be followed by the Committee on Loss & Damage, headed by M. G. Carson, general agent, Big Four and Chesapeake & Ohio.

New Assignments for I. C. C. Members

The Interstate Commerce Commission on June 4 announced the formulation of new assignments for its members, effective on that day. On the previous day, former Assistant Secretary of Commerce J. Monroe Johnson took his oath of office as a member of the commission, succeeding Marion M. Caskie who resigned effective April 1.

Under the new assignments, Division 1—Administration, will consist of Chairman Eastman and Commissioners Porter and Lee, with Commissioner Aitchison acting as an additional member "with respect to matters connected with the admission, disbarment and suspension of practitioners before the commission under Rule I-B of the Rules of Practice." Division 2—Rates, Tariffs and Valuation, will consist of Commissioners Aitchison, Splawn and Alldredge; Division 3—Rates, Service and Safety, Commissioners Mahaffie, Alldredge and Johnson, "except that Commissioner Patterson shall serve in lieu of Commissioner Alldredge with respect to matters arising under Section 26(a)-(g), inclusive, of the Interstate Commerce Act, Railroad Retirement Act of 1937, Carriers Taxing Act of 1937, Railroad Unemployment Insurance Act, the Railway Labor Act, Safety Appliance Acts, Locomotive Inspection Act, Ash Pan Act, Block Signal Resolution of June 30, 1906, Sundry Civil Appropriation Act of May 27, 1908, and Medals of Honor Act." Division 4—Finance, will consist of Commissioners Porter, Mahaffie and Miller; and Division 5—Motor Carriers, Commissioners Lee, Rogers and Patterson.

As noted in the *Railway Age* of June 17, 1939, page 1024, the foregoing set-up of divisions was originally fixed when the commission effected its internal reorganization on July 1 of last year. Then the theretofore departmentalized Motor Carrier Division was stripped of its authority with respect to rates, securities, mergers, and other matters which were "functionalized" under other divisions dealing with all carriers subject to the Act. The present order amends last July's assignment of work to the Motor Carrier Division to read as follows: "Part II of the Act (Motor Carrier Act, 1935) as amended, including authority to institute, conduct and determine investigations into motor carrier practices, except as to matters hereinbefore specially assigned or referred to other divisions, and except the formulation of Proposed Tariff Circular No. 3 for motor carriers, which is hereby reserved for disposition by former Division Five (Commissioners Eastman, Lee and Rogers), *provided*, that subject to the provisions of Section 17 (6) of the Interstate Commerce Act Division Five is also authorized to take such steps with respect to the assignment of its work or functions to a board of employees as it deems necessary and practicable under the law and to enter all necessary orders for that purpose."

Some Railroads and Senator Bilbo Go to Aid of Forwarders

Forwarder efforts to obtain postponement of the June 11 effective date of outstanding Interstate Commerce Commission orders, requiring that their tariffs setting forth joint-rate arrangements with motor carriers be stricken from the commission's files, have drawn the support of several railroads and of Senator Bilbo, Democrat of Mississippi. Unless that effective date of these orders in Ex Parte No. MC-31, Tariffs of Forwarding Companies, and No. MC-2200, the Acme status case, is postponed, the forwarders would thereafter be required to pay the published tariff rates of the motor common carriers whose services they employ. As noted in last week's issue, the Supreme Court has upheld the commission's I. & S. No. M-247 decision striking down motor carrier schedules wherein it was sought to publish the arrangements set forth in the condemned forwarder tariffs. (As the *Railway Age* goes to press it is reported that the I. C. C. has postponed the effective date of its order to July 20).

The aforementioned support from the railroads came in the form of a petition wherein some 30 roads asked the I. C. C. to postpone the effective date of the orders for 90 days; while Senator Bilbo introduced Senate Joint Resolution 268, whereby the commission would be "authorized and directed" to postpone for 90 days the effective date of the Ex Parte No. MC-31 order.

Asking permission to intervene in the latter as well as the Acme case, the petitioning railroads told the commission that their revenues from forwarder traffic aggregated "many millions of dollars annually." Moreover, forwarder operations have enabled them to handle l.c.l. "eco-

nomically, serviceably and profitably." The roads have been informed that if the orders become effective the forwarder traffic handled by them "would be reduced drastically;" and they submitted that the revenues they earn from such traffic "should, in the public interest, be preserved." The petition next cited the aforementioned Supreme Court decision which precludes the motor carriers from publishing the type of tariffs involved, and prayed for the 90-day stay in order that they might have time to determine how to protect their revenues.

Railroads joining in the petition were:

Chicago, Burlington & Quincy; Chicago, Milwaukee, St. Paul & Pacific; Chicago & North Western; Chicago, Rock Island & Pacific; Chicago, St. Paul, Minneapolis & Omaha; Colorado & Southern; Delaware, Lackawanna & Western; Erie; Fort Worth & Denver City; Great Northern; Gulf & Ship Island; Illinois Central; Kansas City Southern; Lehigh Valley; Louisiana & Arkansas; Louisville & Nashville; Minneapolis, St. Paul & Sault Ste. Marie; Missouri-Kansas-Texas; Mobile & Ohio; Nashville, Chattanooga & St. Louis; New York Central; Northern Pacific; St. Louis-San Francisco; St. Louis Southwestern; Seaboard Air Line; Southern; Union Pacific; Wabash; Western Pacific; Wichita Valley; Yazoo & Mississippi Valley.

Mechanical Division Announces Annual Meeting Program

The eighteenth annual meeting of the Association of American Railroads, Mechanical Division will be held in the south ballroom of the Stevens hotel, Chicago, on Thursday and Friday, June 27 and 28. The meeting will convene at 9 a. m. (d. s. t.) each day and will adjourn at 5 p. m. on June 27 and as soon as the program is completed on June 28. Members are urged to be in their seats promptly at 9 a. m.

Section 10 (a) of the Mechanical Division, Rules of Order states that "It shall also be the duty of the Committee on Subjects to receive from members questions for discussion during the time set apart for that purpose. That committee shall determine whether such questions are suitable ones for discussion, and, if so, shall report them to the Division."

The Committee on Subjects will be appointed by the chairman at the opening session on Thursday, June 27, to receive from members questions for discussion. This Committee on Subjects will determine whether such questions are suitable ones for discussion, and, if so, will report them to the Division at an appropriate time for discussion by the members. Members are requested not to start discussion on subjects at the sessions of the meeting which have not been first referred to the Committee on Subjects.

Members should be sure to register each day as they enter the meeting. There will be no badges used for this meeting. Committee reports shall be limited in their presentation to a brief summary of their principal features. By presenting papers and reports as briefly as possible, the maximum of time will be available for discussion. The members are urged to study carefully the advance copies of reports and papers and be prepared to discuss them intelligently. The following are the items in the annual meeting program:

Thursday, June 27, 1940

Address by C. H. Buford, vice-president, Operations and Maintenance department, Association of American Railroads
Address by Chairman F. W. Hankins, assistant vice-president and chief of motive power, Pennsylvania
Action on Minutes of Annual Meeting of 1939
Appointment of committees on Subjects, Resolutions Etc.
Unfinished Business
New Business
Report of General Committee
Report of Nominating Committee
Discussion of Reports on:
  Lubrication of Cars and Locomotives
  Wheels
  Brakes and Brake Equipment
  Couplers and Draft Gears
  Tank Cars
  Loading Rules
  Car Construction

Friday, June 28, 1940

Educational Film — "Know Your Money" — United States Secret Service — Treasury Department
Report on Intercrysalline Cracks in Locomotive Boilers, by Dr. W. C. Schroeder, A. A. Berk, and R. A. O'Brien, presented by Dr. Schroeder, senior chemical engineer, Eastern Experiment Station, Bureau of Mines, College Park, Md.
Discussion of Reports on:
  Arbitration
  Prices for Labor and Materials
  Specifications for Materials
  Locomotive Construction
  Closing Exercises
Adjournment

Western Roads Cannot Afford Higher Labor Costs

"The Western railways cannot afford to increase their wage bills," according to C. E. Johnston, chairman of the Western Association of Railway Executives, in discussing the demand of 14 non-operating brotherhoods for vacations with pay. "Far more than those in the remainder of the country, the Western lines are agricultural lines. Their fortunes rise or fall with the fortunes of the Western farmers. The depressed condition of Western agriculture for the past decade and at the present time is a story too well known to need further repetition.

"Our non-operating employees who now demand vacations with pay all received wage increases in 1937. With the recession of business in 1938 these increased wage scales proved a heavy burden and the railways of the country as a whole sought in that year to effect a wage reduction under the procedure defined in the Railway Labor Act. After individual and national conferences, after negotiation, after mediation, the wage reduction sought by the railways was passed upon by an Emergency Board which reached the conclusion that 'no horizontal reduction upon a national scale of the wages of railway labor should be pressed by the carriers' at that time.

"Legally, this conclusion was merely the expression of an opinion. This opinion was accepted by the railways and their wage reduction notices were withdrawn. The carriers observed not only the letter but the spirit of the Railway Labor Act. Yet the pressing needs of the railroad industry were recognized in the report of the Emergency Board, wherein it was stated that 'The hearings before this Board have thoroughly impressed it with the fact that both carriers and railway labor have now a vital and common concern in the working out of an adequate national transportation policy. Both co-operation and imagination can be expected to be forthcoming from railway labor as well as from the carriers.'

"Meanwhile President Roosevelt had appointed the so-called 'Committee of Six,' consisting of three railway executives and three railway labor executives, to submit recommendations for legislative purposes upon the general transportation situation. This Committee reported to the President in December, 1938, and subsequently various bills were introduced in Congress, based, in varying measure, upon this report. Yet there seems little, if any, prospect that these bills, designed to remove some of the existing inequalities in the transportation industry, will now be enacted into law.

"Thus the railways have tried to solve their pressing problems in the only two ways open to them—by trying to secure a wage reduction and by trying to secure national legislation which would give them a square deal. Both of these methods failed. It is highly significant that the report of the Emergency Board pointed out that 'It may well be that the hoped for relief from the development of a national transportation policy and other similar measures will not be forthcoming. Then the inability of the roads to pay would turn from a short time to a long time aspect, and avenues of relief through wage reductions would have to be explored.'

"The Western railways believed that a wage reduction was essential in 1938. Their belief remains the same today. Yet appreciating our present troubled national situation, they have made no effort to initiate any such reduction. They feel that relief from present high labor costs is both necessary and justified, but they have subscribed wholeheartedly to President Roosevelt's call for complete co-operation between management and men. Now they are faced with a demand equivalent to a further increase in wages which were increased in 1937 to a level even above that prevailing in 1929 at the peak of our national prosperity."

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

AIR BRAKE ASSOCIATION.—R. P. Ives, 350 Fifth Ave., New York, N. Y.

ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago, Ill. Annual meeting, October 22-25, 1940, Hotel Sherman, Chicago, Ill.

AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.—W. R. Curtis, F. T. R. M. & O. R. R., 327 S. La Salle St., Chicago, Ill.

AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. P. Soebbing, 1431 Railway Exchange Bldg., St. Louis, Mo. Annual meeting, October 22-24, 1940, Hollywood Beach, Fla.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York, N. Y.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—F. O. Whiteman, Union Station, St. Louis, Mo. Annual meeting, June 4-6, 1940, Hotel Stevens, Chicago, Ill.

AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill.

AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.—F. R. Borger, C., I. & L. Ry., 836 S. Federal St., Chicago, Ill.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—A. E. Bechtelheimer, (President), C. & N. W. Ry., 400 W. Madison St., Chicago, Ill. Annual meeting, October 15-17, 1940, Hotel Stevens, Chicago, Ill.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York, N. Y.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—E. G. Reed, Union Pacific R. R., 1416 Dodge St., Omaha, Neb.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 11-13, 1941, Palmer House, Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—M. W. Jones, Baltimore & Ohio R. R., 1105 B. & O. R. R. Bldg., Baltimore, Md.

AMERICAN RAILWAY TOOL FOREMEN'S ASSOCIATION.—G. G. Macina, C., M., St. P. & P. R. R., 11402 Calumet Ave., Chicago, Ill.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—J. H. Huntt, Tower Bldg., Washington, D. C. Annual meeting, November 11-12, 1940, Chicago, Ill.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39 St., New York, N. Y.
Semi-annual meeting, June 17-20, 1940, Pfister Hotel, Milwaukee, Wis.
Fall meeting, September 3-5, 1940, Davenport Hotel, Spokane, Wash.
Annual meeting, December 2-6, 1940, New York, N. Y.
Railroad Division—C. L. Combes, *Railway Age*, 30 Church St., New York, N. Y.

AMERICAN TRANSIT ASSOCIATION.—Guy C. Hecker, 292 Madison Ave., New York, N. Y. Annual meeting, September 23-26, 1940, The Greenbrier, White Sulphur Springs, W. Va.

AMERICAN WOOD PRESERVERS ASSOCIATION.—H. L. Dawson, 1427 Eye St., N. W., Washington, D. C. Annual meeting, February 4-6, 1941, Brown Hotel, Louisville, Ky.

ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Bldg., Washington, D. C.
Operations and Maintenance Department.—Charles H. Buford, Vice-President, Transportation Bldg., Washington, D. C.
Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
Operating Section—J. C. Caviston, 30 Vesey St., New York, N. Y.
Transportation Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York, N. Y. Annual meeting, October 15-16, 1940, Chicago, Ill.
Freight Station Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill. Annual meeting, June 11-13, 1940, Pennsylvania Hotel, New York, N. Y.
Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y. Annual meeting, June 10-11, 1940, Pennsylvania Hotel, New York, N. Y.
Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y. Annual meeting, June 26-28, 1940, Windsor Hotel, Montreal, Que.
Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y. Annual meeting, June 4-6, 1940, St. Paul Hotel, St. Paul, Minn.
Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y. Annual meeting, September 10-12, 1940, Chateau Laurier, Ottawa, Ontario, Canada.
Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 11-13, 1941, Palmer House, Chicago, Ill.
Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 11-13, 1941, Palmer House, Chicago, Ill.
Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.
Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y. Annual meeting, October 8-10, 1940, Wardman Park Hotel, Washington, D. C.
Mechanical Division.—V. R. Hawthorne, 59 E. Van Buren St., Chicago, Ill. Annual meeting, June 27-28, 1940, Hotel Stevens, Chicago, Ill.
Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago, Ill. Annual meeting, October 30, 1940, Hotel Sherman, Chicago, Ill.
Purchases and Stores Division.—W. J. Farrell 30 Vesey St. New York, N. Y. Annual meeting, June 25-26, 1940, Pennsylvania Hotel, New York, N. Y.
Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill.
Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington, D. C.
Car-Service Division.—E. W. Coughlin, Transportation Bldg., Washington, D. C.
Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington, D. C.
Accounting Division.—E. R. Ford, Transportation Bldg., Washington, D. C. Annual meeting, June 18-20, 1940, The Greenbrier, White Sulphur Springs, W. Va.
Treasury Division.—E. R. Ford, Transportation Bldg., Washington, D. C. Annual meeting, October 10-11, 1940, Roanoke, Va.
Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington, D. C.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Claim Agent, Alton R. R., 340 W. Harrison St., Chicago, Ill.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—W. S. Carlisle, National Lead Company, 900 W. 18th St., Chicago, Ill. Meets with American Railway Bridge and Building Association.

CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcil Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month except June, July and August, Windsor Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, MO.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—Frank Kartheiser, Chief Clerk, Mechanical Dept., C. B. & Q., Chicago, Ill. Annual meeting, October 22-25, 1940, Hotel Sherman, Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—G. K. Oliver, 2514 W. 55th St., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.

CENTRAL RAILWAY CLUB OF BUFFALO.—Mrs. M. D. Reed, 1817 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—J. T. Bougher, 424 W. 33rd St. (11th floor), New York, N. Y. Annual meeting, September 26, 1940.

INTERNATIONAL RAILWAY GENERAL FOREMEN'S ASSOCIATION (See Locomotive Maintenance Officers' Association).

INTERNATIONAL RAILWAY MASTER BLACKSMITHS' ASSOCIATION.—W. J. Mayer, Michigan Central R. R., Detroit, Mich.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—J. E. Goodwin, Gen. Foreman, Loco. Dept., Missouri Pacific R. R., No. Little Rock, (P. O. Little Rock), Ark. Annual meeting, October 22-25, 1940, Hotel Sherman, Chicago, Ill.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y. Annual meeting, October 22-25, 1940, Hotel Sherman, Chicago, Ill.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Clyde S. Bailey, New Post Office Bldg., Washington, D. C. Annual meeting, December 10-12, 1940, Miami, Fla.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each mouth, except June, July, August and September, Hotel Touraine, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.

PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box 3275, San Francisco, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, and second Friday of each alternate month at Hotel Hayward, Los Angeles.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago, Ill.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 1647 Oliver Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price Allen-Bradley Company, 600 W. Jackson Blvd., Chicago, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, 1255 Old Colony Bldg., Chicago, Ill. Annual meeting, October 22-25, 1940, Hotel Sherman, Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 1647 Oliver Bldg., Pittsburgh, Pa.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone section of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 903 Syndicate Trust Bldg., St. Louis, Mo.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—G. L. Sitton, (President), Southern Ry., Charlotte, N. C. Annual meeting, September 10-12, 1940, Hotel Stevens, Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R., Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga. Ry., Savannah, Ga. Semi-annual meeting, July 25, 1940, Hotel Patten, Chattanooga, Tenn.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, O. and C. Company, 59 E. Van Buren St., Chicago, Ill. Exhibit in connection with Roadmasters' and Maintenance of Way Association. Convention, September 9-12, 1940, Hotel Stevens, Chicago, Ill.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island, N. Y. Annual meeting, October 12-13, 1940, Hotel Buena Vista, Biloxi, Miss.

WESTERN RAILWAY CLUB.—W. L. Fox (Executive Secretary), Room 822, 310 South Michigan Ave., Chicago, Ill. Regular meetings, third Monday of each month, except June, July, August and September, Hotel Sherman, Chicago, Ill.

Williams to Address P. & S. Meeting

A. N. Williams, president of the Lehigh Valley, will be the principal speaker at the annual meeting of the Purchases & Stores Division—A. A. R.—to be held in the Pennsylvania Hotel, New York City, June 25 and 26. Other speakers will include the winners of a contest held by the Division during the year for papers by supply department employees, the winners being James A. Summerton, secretary to the manager of stores of the Canadian National, for a paper on Loyalty, and Raymond J. Hencken, general foreman, stores department, Southern Pacific, for a paper on Railroad Stores Department Personnel.

The program which has been arranged for the meeting is as follows:

Tuesday, June 25

10:30 a.m. (Eastern Daylight Saving Time)
Address—A. N. Williams, president, Lehigh Valley.
Address by C. H. Buford, vice-president, A. A. R.
Report of general committee.
Remarks by the Chairman, A. C. Mann, vice-president, Illinois Central.
Report: Standard material classification.
Report: Scrap, handling and preparation, classification and sale.
Report: General Reclamation.
Report: Material stock report—pricing methods and practices—inventory.
Report: Fuel.
Report: Purchasing department practices—guarantees—quantity price differentials.
Report: Purchasing, storage and distribution of equipment and supplies used in dining cars, hotels and commissaries.
Report: Maintenance of way and construction materials.
Report: Stationery and printing.
Report: Storage and material handling facilities.

Wednesday, June 26

9:30 a.m. (Eastern Daylight Saving Time)
Presentation of winning papers in annual contest.
Report of public relations committee.
Address: J. M. Fitzgerald, vice-chairman, committee on public relations, Eastern Railroads.
Report: Simplification and standardization of stores stocks.
Report: Extension of purchasing in standard packages.
Report: Identification marks on railway tools, materials, etc.
Report: Loss and damage prevention—purchasing and stores department.
Report: Signal, telephone and telegraph material—purchasing, storing and distributing.
Report of resolutions committee.
Report of memorials committee.
Report of nominating committee and election of general committee members.

President Hall Speaks His Mind on Aviation Aids

President Fitzgerald Hall of the Nashville, Chattanooga & St. Louis, has issued a message to employees of that railroad calling attention to excessive public aids

(*News continues on page 1031*)

SOUTHERN PACIFIC COMPANY

ANNUAL REPORT OF THE BOARD OF DIRECTORS TO THE STOCKHOLDERS FOR THE YEAR ENDED DECEMBER 31, 1939

Your Board of Directors submits this report showing, briefly, the results of the operations and financial affairs of the Southern Pacific Company and affiliated companies for the year ended December 31, 1939.

Net income of Southern Pacific Transportation System was $6,134,574.49, which compares with the net deficit of $6,829,008.44 for the year 1938. For Southern Pacific Transportation System and all separately operated solely controlled affiliated companies there was a net income of $2,308,030.24, which compares with the net deficit of $13,265,902.64 for 1938 restated as explained in footnote (*d*) appended to the income account submitted herewith.

Net railway operating income of Southern Pacific Transportation System amounted to $28,428,410.15, an increase of $14,131,406.97, or 98.84 per cent., compared with 1938.

Operating revenues increased $17,502,075.41, or 8.75 per cent. An increased volume of freight traffic was carried during the last nine months of the year, as a result of a general increase in business activity. An increased volume of passenger traffic was carried during summer and fall months largely due to travel to and from the Golden Gate International Exposition on Treasure Island in San Francisco Bay, which was open from February 18 to October 29, in 1939. The Exposition will be reopened in 1940 from May 25 to September 29. Freight revenues increased $15,480,962.07, or 9.85 per cent. An increase of $3,083,389.01 in freight revenues for the first quarter of the year was largely due to the general increase in freight rates effected subsequent to April 1, 1938, under authority of the Interstate Commerce Commission. Revenue gains in November and December, 1939, were partly due to traffic moved by rail as the result of interruption of steamship services to and from the port of San Francisco caused by labor dispute. The increase of $724,048.17, or 2.87 per cent., in passenger revenues, does not fully reflect the gain in the volume of passenger traffic because passenger revenues for the first eleven months of 1938 include $1,406,642.04 of revenues from ferry and electric interurban passenger service in the San Francisco Bay district, operation of which was taken over by the Interurban Electric Railway Company on December 1, 1938. Passenger revenues from operations which were conducted by your Company in both years 1938 and 1939 increased $2,130,690.21, or 8.94 per cent. The gains in freight and passenger revenues were accompanied by an increase of $369,809.59, or 5.00 per cent., in mail and express revenues, and an increase of $927,255.58, or 9.09 per cent., in all other operating revenues.

Operating expenses increased $2,194,954.04, or 1.40 per cent., compared with an increase of $17,502,075.41, or 8.75 per cent in operating revenues. Increases in expenses principally attributable to the increase in volume of traffic were largely offset by a decrease in expenditures for rail renewals, due to relaying 437.06 track miles of new and secondhand rail in 1939 compared with 641.59 track miles of such renewals in 1938; a saving in cost of fuel oil for locomotives and steamships, due to lower prices prevailing during the year; and a decrease in expenses due to transfer of the interurban service, previously mentioned, to Interurban Electric Railway Company. Successive deliveries during the last four months of the year of new, heavy-duty locomotives, forty of which were ordered early in 1939, aided in the efficient movement of traffic during that period.

Railway tax accruals amounted to $18,092,561.55, an increase of $162,496.34 compared with 1938, payable as follows:

Federal and State unemployment insurance taxes	$3,188,734.45
Federal retirement (pension) taxes	2,904,722.42
Other State, County and City taxes	11,894,685.77
Other Federal and miscellaneous taxes	104,418.91
Total	$18,092,561.55

In 1929, for each dollar of net revenue from railway operations, taxes took 24.4 cents, compared with 31.1 cents per dollar in 1939. Railway tax accruals for 1939 are equivalent to $4.80 per share of the outstanding capital stock of your Company; whereas stockholders have not participated in the earnings of the Company through dividends since January 2, 1932.

Equipment and joint facility rents paid increased $1,013,218.06, or 9.56 per cent., because of the movement of a larger number of freight cars of other railroads, private line refrigerator cars, and tank cars, incident to the increased volume of freight traffic.

Total other income amounted to $9,260,666.38, a decrease of $2,015,446.60, or 17.87 per cent., compared with 1938. This is the result of a decrease of $2,573,179.80 in income from funded securities, partly offset by net increases in other items of income. The decrease in income from funded securities is principally due to interest on bonds of Pacific Electric Railway Company and Northwestern Pacific Railroad Company, owned by your Company, not being taken into income for the year 1939. The amount of such interest, $2,534,065.00, included in the net deficit of separately operated solely controlled affiliated companies operating in the United States, is shown as a consolidated adjustment in the income account submitted herewith.

Outstanding bank loans were reduced ten per cent. during the year by payment on November 1, 1939, of $2,000,000.

Funded debt of Southern Pacific Transportation System held by the public increased $6,027,197.03. An equipment trust, known as "Southern Pacific Company Equipment Trust, Series P," was created to provide for construction and acquisition of certain new rolling stock, and $7,575,000, par value, of Two and One-Half Per Cent. Equipment Trust Certificates, was issued under authority of the Interstate Commerce Commission. The certificates mature serially in lots of $505,000 on August 1 of each year, from 1940 to 1954, both inclusive, and are guaranteed by your Company. Notes of your Company, payable April 28, 1942, were issued to the Reconstruction Finance Corporation, with the approval of the Interstate Commerce Commission, covering loans aggregating $8,000,000, which were applied to the payment of maturing equipment trust obligations and to interest on funded debt. On October 23, 1939, an advance payment was made to the Reconstruction Finance Corporation of $2,200,000 on outstanding loans aggregating $22,000,000. The advance payment was applied to a $5,000,000 note due May 1, 1941. Other funded debt, in the principal amount of $7,347,802.97, was retired during the year, consisting principally of equipment trust certificates matured and paid off, and bonds purchased from payments to sinking funds or for use in satisfaction of sinking fund provisions of mortgages.

Expenditures for additions and betterments to properties of the Southern Pacific Transportation System amounted to $16,428,647.98, an increase of $6,751,835.79, compared with 1938. These expenditures include approximately $9,175,692.22 of the cost of the 1939 program for new rolling equipment, consisting of 40 heavy-duty steam locomotives for service on various main lines and 28 streamlined passenger-train cars for service on fast "Daylight" schedules between San Francisco and Los Angeles, covered by Equipment Trust, Series P; and 10 diesel-electric switching locomotives, for which payment will be made out of current funds over a period of eight years.

The Southern Pacific Company from time to time has acquired securities of various companies, as shown by its annual reports, and has advanced funds to a number of such companies for operating and other purposes. In accordance with regulations of the Interstate Commerce Commission these investments are recorded at cost on the books of the Southern Pacific Company. Because of losses sustained and the outlook for the future, the Board of Directors, at meeting on January 11, 1940, decided that recognition should be given in the accounts of the Southern Pacific Company to the decline in value of some of these investments, and, therefore, appropriated out of accumulated surplus the sum of $150,000,000 to be set up as a reserve to provide for the general decline in the value of such investment securities and advances. Accordingly, as of December 31, 1939, $150,000,000 was charged to "Profit and Loss" and credited to "Reserve for Decline in Investment Securities and Advances." If and when these investments are disposed of at a loss the amount of the loss will be charged to the reserve account. This procedure was adopted,

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rather than a direct write-down of individual investments, because it is impossible to estimate at this time the ultimate loss that might be suffered with respect to any particular investment. The "Reserve for Decline in Investment Securities and Advances" is set forth on the asset side of the balance sheet shown in this report as a deduction from total investments. Likewise, reserves for accrued depreciation and for amortization of improvements to leased property and investment in property subject to reversion, are set forth for the first time on the asset side of the balance sheet as deductions from total investments.

On April 1, 1939, by sale of the capital stock and other securities it owned of the Fresno Traction Company, Stockton Electric Railroad Company, San Jose Railroads, and San Jose and Santa Clara County Railroad Company, your Company disposed of its interest in local street-car and bus operations in the cities and suburbs of Fresno, Stockton, and San Jose, California, which had no material relation or value to freight and passenger traffic of Southern Pacific Transportation System.

Pacific Electric Railway Company, which is solely controlled by your Company through stock ownership, operates electric railways and motor bus routes in Los Angeles and vicinity and in the counties of Orange, Riverside, and San Bernardino, California. For 1939, Pacific Electric had a net deficit of $2,918,734.19, compared with a net deficit of $3,248,384.22 for 1938. The deficits for both years include $1,288,600.00 of interest accrued on bonds of the Pacific Electric owned by your Company. As a result of extensive study of its affairs, and following an engineering survey made by the California Railroad Commission, plans have been approved and are in progress of being carried out for abandonment of certain unprofitable rail lines, the substitution of motor coach service for electric car service on a number of routes, and the modernization and replacement of older equipment. It is expected the economies thus made possible and the improved service and equipment provided its patrons will effect a substantial improvement in net results and more than justify the capital expenditures.

Northwestern Pacific Railroad Company, solely controlled by your Company through stock ownership, operates steam passenger and freight service in the counties of Marin, Sonoma, Mendocino, and Humboldt, California, and also operates electric interurban passenger service between Sausalito and other points in Marin county, and passenger ferry service between Sausalito and San Francisco. For the year 1939, the Northwestern Pacific had a net deficit of $1,790,650.57, compared with a net deficit of $2,395,454.88 for 1938. The deficits for both years include $1,245,465.00 of interest accrued on bonds of the Northwestern Pacific owned by your Company. On December 22, 1938, the Northwestern Pacific applied to the California Railroad Commission for authority to discontinue its electric interurban passenger service and passenger ferry service. While operation of these services has been unprofitable for a long time, the losses have increased greatly since the opening of the Golden Gate Bridge on May 28, 1937. By order of the Commission dated December 12, 1939, the Northwestern Pacific, on January 1, 1940, increased the monthly commutation fares and reduced the frequency of interurban service; the application to discontinue and abandon interurban and ferry passenger service being held open by the Commission for future consideration when, after a ninety-day period, the results under the experience of an increased fare and reduced schedule plan shall have become known. (*Note.—Subsequently, the results of the ninety-day experiment, which proved a failure, were brought before the California Railroad Commission, and on May 21, 1940, the Commission authorized the Northwestern Pacific to abandon its interurban passenger service, when, within six months, the Pacific Greyhound Lines establishes a substitute motor coach commutation service.*)

On December 1, 1938, as heretofore mentioned, the Interurban Electric Railway Company, the capital stock of which is owned by your Company, took over operation of the interurban passenger service previously provided by your Company between San Francisco and points on its electric lines in Alameda County, California, and between points local to such electric lines. On January 15, 1939, the Interurban Electric discontinued use of your Company's passenger ferries for transporting passengers across San Francisco Bay and, under an agreement with the California Toll Bridge Authority, extended its electric train operations across the San Francisco-Oakland Bay Bridge to the passenger terminal of the bridge railway in San Francisco. For the year 1939, the Interurban Electric Railway Company had a net deficit amounting to $961,158.30. The volume of traffic transported by transbay interurban carriers has declined sharply since opening of the San Francisco-Oakland Bay Bridge for automobile travel in November, 1936. Use of automobiles for transbay travel has been given impetus by successive reductions of bridge tolls from 65 cents to 35 cents. Further reduction to a 25 cent toll, now being considered, would cause additional loss of rail traffic. All practicable economies in operations of the Interurban Electric have been sought and exercised. The revenue problem cannot be solved by either increase or reduction in fares. The losses sustained by the Interurban Electric have exhausted its financial resources and large advances of cash by your Company have been necessary to enable the electric line to continue its operations. Because of the prospect of further and increased losses, your Company is unwilling to continue making such advances. Unable to find any solution of its financial difficulties, the Interurban Electric, on February 26, 1940, made application to the Interstate Commerce Commission and the California Railroad Commission for authority to discontinue its entire operations. At the same time, your Company made application to the Interstate Commerce Commission for authority to abandon and remove its electric lines in Alameda County, used by the Interurban Electric under trackage rights, except those sections of track which are required by your Company for freight service operations. The Key System, a company in which your Company has no ownership interest, operates electric railway lines and motor coach routes in Alameda County and between cities in that county and the city of San Francisco. The management of the Key System has announced that it can and will find ways and means, with Key System facilities, to take care of the public service now performed by Interurban Electric Railway Company, in a manner that will adequately meet public convenience and necessity. (*Note.—Subsequent to rendition of this report, the bridge automobile tolls were reduced to 30 cents and preliminary hearings by the California Railroad Commission on the abandonment of Interurban Electric operations have been held, but no definite plan for a substitute service has yet been worked out.*)

Through changed conditions, results of operation of Southern Pacific Railroad Company of Mexico, the capital stock of which is owned by your Company, have been unsatisfactory for many years and the light traffic volume yields insufficient revenue to adequately maintain and operate the property. From time to time, your Company has made substantial advances to meet the requirements of the Southern Pacific Railroad Company of Mexico, and these advances remain unpaid. After thoroughly considering the situation and following a trip made over the road by a number of your Directors, conclusion was reached that, effective January 1, 1940, no further cash advances be made for the relief of the Southern Pacific Railroad Company of Mexico, and that, from that date, it be required to conduct its operations entirely within its own resources. The outcome of this policy is uncertain, depending upon such increases as may be obtainable in transportation rates and volume of traffic handled, and such economies as may be brought about through improvement in efficiency of labor and other costs. It is too early to predict what the final result will be, but under existing conditions further financial support by your Company cannot be justified. For the year 1939, Southern Pacific Railroad Company of Mexico had a net deficit of $830,338.81, compared with a net deficit of $1,416,518.04 restated for 1938 on the basis explained in footnote (*c*) appended to the income account submitted herewith.

In the matter of reorganization of St. Louis Southwestern Railway Company, which the Interstate Commerce Commission has under advisement, hearings were begun on May 5, 1939, at Washington, D. C., with respect to matters alleged in petitions filed by an intervener concerning the effect upon finances, earnings and assets of the St. Louis Southwestern Railway Company of control thereof by the Southern Pacific Company and others. Final submission of these matters to the Commission is expected to be made within the next few months. On August 25, 1939, a Special Master appointed by the United States District Court having jurisdiction of the St. Louis Southwestern bankruptcy proceeding, upheld your Company in the matter of a protest filed by two foreign corporate holders of St. Louis Southwestern First Terminal and Unifying Bonds against the allowance of your Company's claim based on the note of St. Louis Southwestern Railway Company originally issued to Reconstruction Finance Cor-

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poration in the principal amount of $17,882,250 and later purchased and now owned by your Company, as stated in reports for previous years. On January 26, 1940, the Court approved and confirmed the report of the Special Master and entered an order allowing the claim of your Company in the full principal amount with interest thereon.

Southern Pacific Golden Gate Company, a holding company in which your Company owns slightly over fifty per cent. of the outstanding stocks, and its solely controlled Southern Pacific Golden Gate Ferries, Ltd., which operates vehicular ferries on San Francisco Bay, had a consolidated net loss for 1939 of $175,212.10, compared with a net loss of $457,103.17 for 1938. The successive reductions in automobile tolls on the San Francisco-Oakland Bay Bridge have resulted in serious inroads in revenues of these ferries. (*Note.—As a result of defaulting in the payment of interest on its First Mortgage Bonds on April 1, 1940, the Southern Pacific Golden Gate Ferries, Ltd. was subsequently adjudicated a bankrupt by a Federal Court, and ferry operations were discontinued at midnight, May 16, 1940.*)

The fine spirit of cooperation and loyalty displayed by officers and employees and the efficient service rendered by them during the year are gratefully acknowledged.

By order of the Board of Directors,

A. D. McDONALD,
President.

Income

Southern Pacific Transportation System (Southern Pacific Company and Transportation System Companies, Consolidated) and separately operated solely controlled affiliated companies.

Southern Pacific Transportation System:	Year 1939	+ Increase — Decrease	Per Cent.
Freight revenues	$172,715,307.32	+$15,480,962.07	9.85
Passenger revenues	25,968,313.28	+724,048.17	2.87
Mail and express revenues	7,763,983.46	+369,809.59	5.00
All other operating revenues	11,125,285.01	+927,255.58	9.09
Total railway operating revenues	$217,572,889.07	+$17,502,075.41	8.75
Maintenance of way and structures	$22,151,816.88	—$1,883,020.86	7.83
Maintenance of equipment	37,294,441.46	+3,066,588.17	8.96
Traffic expenses	6,391,501.68	+588,535.04	10.14
Transportation expenses	80,989,715.92	+231,299.61	.29
All other operating expenses	12,614,146.82	+191,552.08	1.54
Total railway operating expenses	$159,441,622.76	+$2,194,954.04	1.40
Net revenue from railway operations	$58,131,266.31	+$15,307,121.37	35.74
Railway tax accruals	18,092,561.55	+162,496.34	.91
Equipment and joint facility rents—Net	11,610,294.61	+1,013,218.06	9.56
Net railway operating income	$28,428,410.15	+$14,131,406.97	98.84
Revenues from miscellaneous operations	$181,278.51	—$42,334.07	18.93
Income from lease of road and equipment, and miscellaneous rent income	1,735,834.55	+15,244.47	.89
Dividend income (*a*)	4,056,286.83	+378,085.83	10.28
Income from funded securities	336,570.43	—2,573,179.80	88.43
Other income accounts	2,950,696.06	+206,736.97	7.53
Total other income	$9,260,666.38	—$2,015,446.60	17.87
Total income	$37,689,076.53	+$12,115,960.37	47.38
Expenses and taxes on miscellaneous operating property	$182,652.65	—$44,098.90	19.45
Miscellaneous rents	658,853.25	—15,756.47	2.34
Other miscellaneous deductions from income	705,704.91	—75,063.33	9.61
Total miscellaneous deductions	$1,547,210.81	—$134,918.70	8.02
Income available for fixed charges	$36,141,865.72	+$12,250,879.07	51.28
Rent for leased roads and equipment	$31,064.53	+$1,698.42	5.78
Interest on funded debt—Bonds and notes	29,211,572.60	—217,850.27	.74
Interest on funded debt—Non-negotiable debt	767.32	+ 73.30	10.56
Interest on unfunded debt	763,886.78	+102,156.58	15.44
Amortization of discount on funded debt (*b*)	—	—598,781.89	100.00
Total fixed charges	$30,007,291.23	—$712,703.86	2.32
Net income of Southern Pacific Transportation System	$6,134,574.49	+$12,963,582.93	—
Separately Operated Solely Controlled Affiliated Companies:			
Operating in the United States—Net deficit	*5,418,608.89*	+594,974.09	12.33
Operating in the Republic of Mexico—Net deficit (*c*) (*d*)	*942,000.36*	—671,259.04	41.61
Consolidated Adjustment: Interest on bonds of separately operated Solely Controlled Affiliated Companies owned by Southern Pacific Company not included in the income of Southern Pacific Transportation System shown above	2,534,065.00	+2,534,065.00	—
Consolidated Net Income of Southern Pacific Transportation System and all separately operated Solely Controlled Affiliated Companies (*d*)	$2,308,030.24	+$15,573,932.88	—

(*a*) Excludes dividends received from Transportation System Companies. Also, for 1938, this item excluded dividends received from separately operated Solely Controlled Affiliated Companies for the reason that offsetting charges by such companies were made against Profit and Loss and, therefore, were not offset by the inclusion of the net deficit of such companies. There were no dividends received from separately operated Solely Controlled Affiliated Companies during 1939. (*b*) Under option allowed by the Interstate Commerce Commission, unextinguished discount on funded debt was charged off to Profit and Loss as of January 1, 1939, resulting in the discontinuance of amortization charges to income. (*c*) Net deficit of separately operated Solely Controlled Affiliated Companies operating in the Republic of Mexico includes (1) Mexican Currency transactions converted to U. S. Currency at official exchange rates, established by Mexican Government for tax purposes, in effect at time transactions occurred, ranging from 4.90 pesos to 4.95 pesos per dollar for 1939, and 3.55 pesos to 4.90 pesos per dollar for 1938; and (2) Mexican Currency charges for depreciation, amortization, and property retirements converted at exchange rates equalling, or closely approximating, those in effect at the time the property was acquired. (*d*) For comparative purposes, 1938 figures have been restated to include net deficit of separately operated Solely Controlled Affiliated Companies operating in the Republic of Mexico on basis described in Note (*c*).

CONSOLIDATED BALANCE SHEET—DECEMBER 31, 1939

Southern Pacific Transportation System

(Southern Pacific Company and Transportation System Companies, Consolidated, Excluding Inter-Company Securities and Open Account Balances)

The assets reported below are stated on the basis of the classifications prescribed by the Interstate Commerce Commission. Other than the reserves provided, no attempt has been made to adjust the assets to current estimated values.

ASSETS

Investments		
Transportation property	$1,470,896,543.32	
Miscellaneous physical property	26,095,238.50	
Sinking funds	498,749.73	
Affiliated companies—Securities and advances	269,666,617.91	
Other investments, including securities of, and advances to, non-affiliated companies	14,286,752.51	$1,781,443,901.97
Deduct:		
Appropriated surplus—Reserve for decline in investment securities and advances	$150,000,000.00	
Reserve for accrued depreciation—Road, equipment, and miscellaneous physical property	151,983,755.44	
Reserve for amortization of improvements on leased property and investment in property subject to reversion	1,419,789.84	303,403,545.28
Net investments		$1,478,040,356.69
Current Assets		
Cash	$27,213,573.92	
Material and supplies	13,986,011.63	
Other current assets	17,438,893.68	58,638,479.23
Deferred Assets and Unadjusted Debits		
Deferred assets	$1,501,373.15	
Unadjusted debits	8,425,638.71	9,927,011.86
Grand total		$1,546,605,847.78

LIABILITIES

Stock		
Capital stock held by the public	$377,277,705.64	
Premium on capital stock	6,304,845.00	$383,582,550.64
Grants in Aid of Construction		3,681,565.14
Funded Debt Unmatured		
Held by the public	$705,094,840.49	
Held in sinking funds:		
By Transportation System Companies	553,000.00	
By Solely Controlled Affiliated Companies	296,000.00	705,943,840.49
Non-Negotiable Debt to Affiliated Companies		
Open accounts		10,837,178.61
Current Liabilities		
Loans and bills payable	$18,000,000.00	
Accounts and wages payable	15,941,657.65	
Interest matured unpaid	329,482.09	
Interest payable January 1st	4,338,306.25	
Unmatured interest accrued	5,798,929.08	
Other current liabilities	1,677,809.09	46,086,184.16
Deferred Liabilities and Unadjusted Credits		
Deferred liabilities	$1,024,373.57	
Unadjusted credits	17,462,599.77	18,486,973.34
Consolidated Adjustment		
Excess of inter-company liabilities over assets eliminated		67,826,364.43
Corporate Surplus		
Appropriated surplus	$159,767,596.36	
Less: Reserve for decline in investment securities and advances deducted from "Investments" on asset side	150,000,000.00	

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Balance of appropriated surplus	$9,767,596.36	
Profit and loss—Balance	300,393,594.61	310,161,190.97
Grand total		$1,546,605,847.78

STATISTICS
(SOUTHERN PACIFIC TRANSPORTATION SYSTEM RAIL LINES)

	Year 1939		+Increase —Decrease	Per Cent.
Average miles of road operated during year	13,068.86	—	51.23	.39
Freight train-miles	23,994,377	+	1,435,001	6.36
Tons carried—Revenue freight	45,233,295	+	3,173,679	7.55
Net ton-miles—Revenue freight	15,393,287,960	+	1,682,396,367	12.27
Loaded cars per freight train	31.50	+	.90	2.94
Net tons per freight train—All freight	699.83	+	37.48	5.66
Revenue per net ton-mile—Revenue freight	1.079 cents	—	.024 cents	2.18
Average distance carried — Revenue freight (miles)	340.31	+	14.32	4.39
Passenger train-miles	18,586,031	—	341,432	1.80
Passengers carried—Revenue	9,662,197	+	480,561	5.23
Passenger-miles—Revenue *	1,622,877,682	+	150,990,680	10.26
Passengers per passenger train—Revenue passengers	87.50	+	11.33	14.87
Passenger revenue per passenger-mile *	1.577 cents	—	.059 cents	3.61
Average distance carried — Revenue passengers (miles) *	167.96	+	7.65	4.77

*NOTE: The fluctuations shown in these items of passenger statistics are based on comparison with 1938 results which excluded electric rail line operations of the interurban service taken over by Interurban Electric Railway Company on December 1, 1938, as mentioned in the foregoing narrative, but included ferry operations applicable to such interurban service. Restatement of 1938 figures to exclude such ferry operations would have produced the following fluctuations in lieu of those shown in the foregoing tabulation:

	Year 1939		+Increase —Decrease	Per Cent.
Passenger-miles—Revenue	1,622,877,682	+	181,928,271	12.63
Passenger revenue per passenger-mile	1.577 cents	—	.058 cents	3.55
Average distance carried—Revenue passengers (miles)	167.96	+	11.02	7.02

[Advertisement]

News

(*Continued from page 1027*)

to aviation and recommending "that you question every man who runs for public office for whom you have the opportunity to vote as to whether he will try to use his influence effectively to put all forms of transportation on an equal basis before the law." Pointing out that the W. P. A. has spent a total of $4,422,000 on municipal airports and intermediate landing fields in the state of Tennessee, to which municipal sponsors have added payments of approximately $1,000,000, Mr. Hall recalls that such developments, being publicly owned, are not subject to taxation and the public money spent on them is forever taken out of the tax base. He adds: "No W. P. A. funds have been spent on our railroad terminals. Why this inexcusable discrimination?"

The message points out that commercial aviation companies, in addition to their receipt of government favors in the form of tax-free air fields, beacon lights, weather service, etc., do not even pay *ad valorem* taxes on their equipment. While railroad power and carrying units are being subjected by the state to such levies, airplanes are not being assessed and are not paying such taxes "because constituted authority in Tennessee has, with its eyes open, deliberately failed to conform to the organic law of the state in the matter of the assessment of property for taxation."

Atlantic Coast Line to Pay More Than $260,000 Restitution

The Atlantic Coast Line, against which the Wage and Hour Division of the U. S. Department of Labor brought suit May 3, 1939, charging improper deductions from the wages of its maintenance-of-way employees, has been ordered to pay restitution to more than 3,500 of such employees, totaling in excess of $260,000.

In Washington, D. C., Colonel Philip B. Fleming, Wage and Hour Administrator, said that the restitution involved in this case was the largest in any yet investigated by the Division. The order was signed by Judge Robert N. Pollard in the United States District Court at Richmond, Va. Under the terms of the judgment the company within 120 days will compute the amount due each employee and submit it for the approval of the Wage and Hour Division. The order provides that the Division may reject any or all of the computations, make its own computations, and that its determination shall be final.

In its complaint, the Wage and Hour Division charged the railroad with deducting from the pay of its maintenance-of-way employees unreasonable sums for the rental of houses, "many of which were non-existent and others unfit for human habitation." A separate stipulation, which was made a part of the judgment, prescribes the minimum standards of housing for which deductions may be made and prohibits the railroad from compelling employees to live in company-owned houses. It also directs the company to issue and distribute to its employees within 10 days a notice setting forth the minimum standards, rental to be charged, and the fact that they are not compelled to live in company houses.

As a direct result of the suit filed by the Wage and Hour Division, five maintenance-of-way employees brought suit against the railroad last June for amounts deducted from their wages, for an equal amount in liquidated damages, and for attorneys' fees. These employee suits were in accordance with Section 16 (b) of the Fair Labor Standards Act, which makes the employer liable for the additional sums when wages are illegally withheld. The Wage and Hour Division and the U. S. Department of Justice intervened in the employee suit when the railroad, in its defense, contested the constitutionality of the Act and the legality of Part 531 of the regulations promulgated by the Administrator. This regulation prescribes the method of computing deductions for the "reasonable cost of board, lodging, and other facilities customarily furnished by the employer to his employees," as provided for in the Act.

In a decision handed down February 17, Judge Isaac M. Meekins, of the U. S. District Court at Fayetteville, N. C., sustained every claim of these employees and rendered judgments in their favor, totaling $1,079. A second employee unit tried before Judge William H. Barrett in U. S. District Court at Waycross, Georgia, also resulted in a judgment against the railroad company.

After Judge Meekins' decision was rendered, officials of the railroad contacted Colonel Fleming to say that they would not further contest the case pending in the Richmond Federal Court. They also promised that the carrier would make full restitution to its maintenance-of-way and structure employees.

Under terms of the judgment, the railroads may make deductions from the pay of its employees for the following services:

1. Railroad unemployment insurance, social security, and any unemployment compensation taxes in any of the states in which the defendant operates its railroad system; and any additional such taxes which the railroad will be required to pay for the employees by virtue of the restitution provided for in today's judgment.
2. The actual amount expended by the railroad pursuant to garnishment or attachment of the wages of any such employee earned after October 24, 1938, when the Wage and Hour Law went into effect.
3. Membership dues in the railroad's relief department when the employee has become a member of it.
4. The amounts charged for rations purchased by such employee and paid for by payroll deductions.
5. The reasonable cost to the company of housing facilities voluntarily accepted and actually lived in by any such employee on October 23, 1938, and who continued to live therein.

The reasonable cost per month for such housing shall be as follows:

Type of Dwelling	Number of Rooms	Monthly Rental for Entire Dwelling
Houses and housing space in depot	1	$2.00
	2	4.00
	3	5.00
	4	6.00
	5	7.50
	6	8.00
Single boxcar or one-half of double boxcar		2.00
Double boxcar		4.00

Where two or more such employees occupy one dwelling, each employee shall be required to pay his proportionate share of the rental charge for the entire dwelling.

The judgment further provides that no deduction shall be made for any room less than 8 ft. 6 in. in width and 9 ft. 6 in. in length, except that a kitchen may measure 7 ft. 6 in. in width by 9 ft. in length.

Another provision in the judgment is that no deduction may be made for housing unless sanitary facilities and water supply are reasonably accessible and are kept in a reasonable state of repair. If such supplies are separated by a railroad mainline or actively used switching tracks, they shall not be deemed to be reasonably accessible.

No other deductions can be made without the consent of the Administrator of the Wage and Hour Division, the judgment declares.

Equipment and Supplies

May Freight Car Buy Best in '40

Five months' locomotive total ahead of last year; freight cars highest this year

Orders were placed with United States builders and shops during May for a total of 20 locomotives (all Diesel-electric); 2,081 freight cars and one passenger-train car. These orders compare with purchases of 51 locomotives (all Diesel-electric) and 2,051 freight cars in May, 1939; no passenger-train cars were ordered in that month.

LOCOMOTIVES

THE MISSOURI PACIFIC has ordered 11 Diesel-electric switching locomotives, placing one of 1,000 hp. and one of 600 hp. with the Electro-Motive Corporation, two of 600 hp. with the American Locomotive Company, two of 600 hp. with the Baldwin Locomotive Works, two of 44 tons with the General Electric Company, one of 44 tons with the H. K. Porter Company, one of 44 tons with the Davenport-Besler Corporation and one of 44 tons with the Whitcomb Locomotive Works.

FREIGHT CARS

THE MISSOURI PACIFIC has ordered 100 steel frame stock cars of 40 tons' capacity for the Gulf Coast Lines and 100 steel frame stock cars of 40 tons' capacity for the International-Great Northern from the American Car & Foundry Company. Inquiry for this equipment was reported in the *Railway Age* on January 13, on page 147. A contract was also let by this road for 30 covered hopper cars of 70 tons' capacity to the Mt. Vernon Car Manufacturing Company.

THE VIRGINIAN has received prices for materials to be used in the construction of 500 hopper cars of 50 tons' capacity; these cars may be built in its own shops.

THE TENNESSEE COAL IRON & RAILROAD CO., has ordered 10 gondola cars of 70 tons' capacity from the Pullman-Standard Car Manufacturing Company.

PASSENGER CARS

THE MISSOURI PACIFIC has ordered a three-unit streamlined train, the 1000 hp. Diesel-electric locomotive to be built by the Electro-Motive Corporation and the two coaches by the St. Louis Car Company. The train will be operated between Memphis, Tenn., and Tallulah, La.

THE SEABOARD AIR LINE is inquiring for 18 coaches.

IRON AND STEEL

LONG ISLAND.—Bids are wanted on June 20 for about 5,500 tons of steel for use on Sections 3 and 4 of the Atlantic avenue, Brooklyn, N. Y., grade-crossing elimination project.

MOTOR VEHICLES

THE NEW ENGLAND TRANSPORTATION COMPANY, Boston, Mass., has placed an order with the a.c.f. Motors Company for two motor coaches, powered with the Hall-Scott horizontal engine.

Domestic Equipment Orders Reported in Issues of the Railway Age in May 1940

(Including June 1)

LOCOMOTIVES

Date	Name of Company	No.	Type	Builder
May 18	Chicago, Rock Island & Pacific	1	Diesel-electric	American Locomotive Co.
May 25	Terminal Railroad Association of St. Louis	6	Diesel-electric	Electro-Motive Corp.
		2	Diesel-electric	Baldwin Locomotive Works
		2	Diesel-electric	American Locomotive Co.
June 1	Chicago, Burlington & Quincy	9	Diesel-electric	Electro-Motive Corp.

FREIGHT CARS

Date	Name of Company	No.	Type	Builder
May 11	Pennsylvania	100	Covered Hopper	Company Shops
May 11	Nashville, Chattanooga & St. Louis	50	Covered Hopper	Pullman-Standard
May 11	Chesapeake & Ohio	100	Flat	Pullman-Standard
May 11	Cincinnati, New Orleans & Texas Pacific	50	Covered Hopper	Pullman-Standard
May 11	Alabama Great Southern	25	Covered Hopper	Pullman-Standard
May 18	Great Northern	1,000	Box	Pullman-Standard
May 18	Chicago, Rock Island & Pacific	150	Gondola	Pullman-Standard
		60	Hopper	General American
May 25	Tennessee Coal, Iron & Railroad	16	Air-dump	Pressed Steel
June 1	Donora Southern	30	Gondola	Magor Car Corp.
June 1	Denver & Rio Grande Western	500	Box	Pressed Steel

PASSENGER-TRAIN CARS

Date	Name of Company	No.	Type	Builder
May 4	New York Central	1	Coach	Edward G. Budd Mfg. Co.

The May total of 2,081 freight cars is the largest for any month of the year so far.

The month's orders bring total equipment purchases for the year thus far to 156 locomotives, 6,350 freight cars and 21 passenger-train cars, as compared with a total of 144 locomotives; 7,753 freight cars and 121 passenger-train cars ordered during the corresponding five months of 1939. No orders were received from abroad in May and the Canadian market was entirely dormant.

Exclusive of orders actually booked cited above, there were domestic inquiries pending for, or contemplated purchases of, a total of 39 locomotives (24 steam and 15 Diesel-electric), 3,711 freight cars and 46 passenger-train cars. In addition, there exist inquiries for 4 steam locomotives for service in Portuguese East Africa.

Construction

ATCHISON, TOPEKA & SANTA FE AND THE ILLINOIS CENTRAL.—A contract amounting to approximately $157,000 has been awarded the Great Lakes Dredge & Dock Company, Chicago, for the construction of a subway in that city which will carry five tracks, two main tracks of the Santa Fe, two main tracks of the Illinois Central and the Santa Fe lead track to the produce terminal, over Western avenue and a new boulevard drive. The total cost of the subway, including material furnished by the railroads, the cost of raising the tracks about 3½ ft., and other work to be done by the railroad forces, will approximate $470,000.

CANADIAN PACIFIC.—A contract has been awarded MaCaw and MacDonald, Winnipeg, Man., for the construction of a 60-ton electrically-operated coaling plant at Bredenburg, Sask. The coaling plant will consist of a framed-timber coal chute approximately 18 ft. by 18 ft. by 55 ft. high, with a steel-lined pocket, and will be equipped with a half-ton capacity bucket hoist which is dumped automatically. The coaling plant will be supported on concrete pedestals, supported, in turn, on cedar piling.

NEW YORK, CHICAGO & ST. LOUIS.—A contract amounting to $241,378 has been awarded the National Construction Company, Cleveland, Ohio, for the construction of a highway bridge and approaches over two tracks of the Nickel Plate near Kingsville, Ohio. The bridge, which will cross the tracks at a large skew, will be 677 ft. in length and will consist of a continuous concrete slab deck with a substructure consisting of numerous concrete columns. The deck will be 52 ft. in width with two 3½-ft. sidewalks.

ST. LOUIS-SAN FRANCISCO.—A contract amounting to approximately $14,000 has been awarded Harvey & Quina, Pensacola, Fla., for a 192-ft. extension of the present warehouse at the Pensacola docks of this road.

Supply Trade

Cutler-Hammer, Inc., has moved its Minneapolis, Minn. office and warehouse to larger quarters at 532 South Seventh street.

E. H. Anchors, branch manager for the **Air Reduction Sales Company** at Atlanta, Ga., has been appointed manager of the Oklahoma City, Okla., district.

Baldwin Locomotive Works has received from the War Department an "educational order" amounting to $587,694 for the manufacture of light tanks.

Peter D. Walsh has been appointed general traffic manager for the **Celotex Corporation** at Chicago, succeeding **William N. Webb,** deceased.

Fred L. Lawrence has been appointed Detroit district manager, with office in the General Motors building, Detroit, Mich., for the **Copperweld Steel Company,** Glassport, Pa.

Charles A. Beaumont has been appointed western railway representative for the **Wilson-Imperial Company,** Newark, N. J. Mr. Beaumont's office is at 35-37 West Jackson Boulevard, Chicago.

Marshall Williams, assistant to the president of the **American Bridge Company,** Pittsburgh, Pa., a subsidiary of the United States Steel Corporation, has retired after 42 years service.

C. R. Mitchell, Jr., has been appointed assistant district manager of sales for the New York district office of the **Allegheny Ludlum Steel Corporation,** Pittsburgh, Pa.

The Julian d'Este Company, Boston, Mass., has been merged with the **American Chain & Cable Company, Inc.,** Bridgeport, Conn., and its products will be manufactured at the latter company's plant at Reading, Pa.

The Brake Equipment & Supply Company, Chicago, will move into a new plant at 7001 West Sixty-Sixth Place in the Clearing industrial district on June 1. The new plant contains 25,000 sq. ft. of floor space.

Truman B. Brown, who has been employed in the development and sales promotional activities of Ludlite for the **Allegheny Ludlum Steel Corporation,** Pittsburgh, Pa., has been promoted to manager of Ludlite sales, with headquarters at Watervliet, N. Y.

The Timber Engineering Company of New England has been formed with office at 422 Border St., Boston, Mass. This company, which is an affiliate of the Timber Engineering Company, Washington, D. C., has been organized to meet the demand in the New England area for information regarding the use of Teco connectors in timber construction.

The Koppers Coal Company on June 1 moved its Philadelphia, Pa. district office from the Packard building to 1458 Broad Street Station building, and **The Wood Preserving Corporation** at that address has moved its office to the same suite. The Koppers Coal Company is an affiliate and The Wood Preserving Corporation is a subsidiary of the **Koppers Company.**

D. J. Henecker has been appointed assistant manager of sales for wire rope and **C. E. Kendall,** assistant manager of sales for wire and galvanized sheets for the **Jones & Laughlin Steel Corporation,** Pittsburgh, Pa. Mr. Henecker was formerly sales manager of the Wickwire Spencer Steel Company, for all its products in the eastern district, and Mr. Kendall has been with the Jones & Laughlin wire sales department since February, 1939.

Edward R. Stettinius, Jr., resigned as chairman of the board of directors and as a member of the board of directors and finance committee of the **United States Steel Corporation** at a special meeting held on June 4. Mr. Stettinius presented his resignation in order to serve as a member of the recently appointed National Defense Commission. At that meeting **Irving S. Olds** was elected chairman of the board of directors to succeed Mr. Stettinius. Mr. Olds has been a director and a member of the finance committee of the Steel Corporation since October 27, 1936. He is a member of the law firm of White & Case.

Blank & Stoller

Irving S. Olds

Irving Sands Olds was born at Erie, Pa., on January 22, 1887. He was graduated from Erie High School in 1903, from Yale College in 1907, and Harvard Law School in 1910; he was admitted to the bar in Pennsylvania in 1910 and in New York in 1912. Mr. Olds was secretary to Justice Holmes, of the United States Supreme Court, 1910-1911, becoming connected with White & Case, a New York legal firm, in August, 1911, and admitted as a partner January 1, 1917. During 1917-1919, Mr. Olds served as counsel for the purchasing department of the British War Mission to the United States, and in 1918 was a special assistant in the U. S. War Department. Since 1919, Mr. Olds as a member of the firm of White & Case has engaged in legal work related to matters of organization and administration of corporate business enterprises.

Financial

CAPE FEAR.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon the operation of 1.8 miles of track on the Ft. Bragg Military Reservation in Cumberland County, N. C.

CENTRAL OF NEW JERSEY.—*Reorganization Expenses.*—Division 4 of the Interstate Commerce Commission has certified that in the preparation of a report on an investigation of the income accounts of this company during reorganization proceedings under section 77 of the Bankruptcy Act, its Bureau of Accounts incurred $10,772 of expenses.

CHATTAHOOCHEE VALLEY.—*Note.*—This company has asked the Interstate Commerce Commission for authority to issue an unsecured 2½ per cent promissory note for $330,000, to be guaranteed by the West Point Manufacturing Company, and the proceeds to be used to redeem a like amount of consolidated mortgage six per cent bonds, due July 1, 1940. The note will mature in the amount of $20,000 on each anniversary of its issue, beginning with the first year after the date of issue and ending with the fourth year with a final installment of $250,000 five years thereafter.

CHESAPEAKE & OHIO.—*Purchase of the Kanawha, Glen Jean & Eastern.*—This company has asked authority from the Interstate Commerce Commission to purchase for $550,000 cash the property and franchises of the Kanawha, Glen Jean & Eastern, extending from Glen Jean, W. Va., to Tamroy, eight miles; from Sugar Creek Junction, W. Va., to a connection with the Virginian at Pax, 6.2 miles, together with 12.3 miles of switching tracks, a total of 26.5 miles.

CHICAGO & NORTH WESTERN.—*Reorganization.*—The district court on May 21, denied a motion by a special committee for the directors to delay the hearing on reorganization, set for June 24, for a period of three months in order to give new counsel time to become familiar with the proceedings. The court ruled that while Samuel H. Cady, general counsel of the road, and its legal department will not represent the common stockholders in the proceedings, this does not mean that representatives for the shareholders of the common has been eliminated.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon a portion of a branch line extending from Sauk City, Wis., to the end of the line at Prairie du Sac, one mile.

COLORADO & SOUTHERN.—*Extension of Bond Maturities.*—The Wichita Valley, the Abilene & Northern, and the Wichita Falls & Oklahoma, all subsidiaries of this company, respectively, have been authorized by Division 4 of the Interstate Commerce Commission to extend from July 1, 1936, to July 1, 1951, the obligation and lien of

their matured first mortgage six per cent bonds in the following amounts: $744,000, $516,000, and $353,500. The bonds are all owned by the C. & S.

FEATHER RIVER.—*Operation and Stock.*—This company, which was recently formed, has been authorized by Division 4 of the Interstate Commerce Commission to operate a line of railroad extending from Land, Calif., to Ward, 28.4 miles. At the same time it was also authorized to issue at par 605 shares of common stock with a $100 par value, 100 shares to be sold for cash to provide working capital and 505 shares to be issued in connection with the procurement of certain equipment.

GREAT NORTHERN.—*Bonds.*—Division 4 of the Interstate Commerce Commission has approved a plan whereby this company would (1) issue $20,000,000 of collateral trust bonds, to be sold at par and accrued interest to the Reconstruction Finance Corporation and the proceeds used to retire a like amount of St. Paul, Minneapolis & Manitoba Railway Company Pacific extension 50-year four per cent gold bonds, due July 1, 1940; and (2) issue and pledge as collateral security for the collateral trust bonds $40,000,000 of general mortgage four per cent gold bonds, series J, maturing January 1, 1952. Of the collateral trust bonds, $7,000,000 will mature serially in the amount of $500,000 on July 1 in each of the years 1941 to 1946, inclusive, and in the amount of $800,000 on July 1 in each of the years 1947 to 1951, inclusive, and the remaining $13,000,000 will mature January 1, 1952.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE-DULUTH, SOUTH SHORE & ATLANTIC.—*Operation.*—These companies have asked authority from the Interstate Commerce Commission to operate over the Sault Ste. Marie bridge from Sault Ste. Marie, Mich., to Sault Ste. Marie, Ont.

MINNEAPOLIS, ST. PAUL & S. S. MARIE.—*Annual Report.*—The 1939 annual report of this road shows net income of $943,605 after interest and other charges, as compared with net deficit of $35,721 in 1938. Selected items from the income account follow:

	1939	Increase or Decrease Compared with 1938
RAILWAY OPERATING REVENUES	$15,345,089	+$1,652,372
TOTAL OPERATING EXPENSES	12,799,610	+655,355
NET REVENUE FROM OPERATIONS	2,545,478	+997,016
Net Equipment, Joint facility rents and Taxes—Dr.	1,702,505	–853
NET RAILWAY OPERATING INCOME	842,972	+997,868
Other income	149,997	–23,303
TOTAL INCOME	992,970	+974,566
Rent for leased roads, interest on equipment obligations and misc. accounts, being paid by trustees	49,364	–4,762
NET INCOME	$943,605	+$979,326

MISSOURI PACIFIC.—*Abandonment by International-Great Northern.*—The International-Great Northern has applied to the Interstate Commerce Commission for authority to abandon its 4.1-mile branch line from Tucker, Tex., to Salt City.

MISSOURI PACIFIC.—*Abandonment of Car Ferry.*—This road has applied to the Interstate Commerce Commission for authority to abandon a car-ferry operation across the Mississippi river between Ivory Station, Mo., and East Carondelet, Ill. The application states that the ferry is no longer in use since the traffic moves over bridges.

MISSOURI PACIFIC.—*Extensions of San Benito & Rio Grande Valley and St. Louis, Brownsville & Mexico.*—The trustee of these Missouri Pacific affiliates has applied to the Interstate Commerce Commission for authority to extend the lines of the San Benito & Rio Grande Valley by construction of a 3.6-mile connection with the Port Isabel & Rio Grande from a point near Abney, Tex., on the S. B. & R. G. V. to M. P. 16.8 on the P. I. & R. G.; and to extend the St. Louis, Brownsville & Mexico through the acquisition of the P. I. & R. G.'s facilities in Brownsville, Tex.

MISSOURI PACIFIC.—*Acquisition and Trackage Rights.*—This company has asked the Interstate Commerce Commission for authority to acquire control of the North Kansas City Bridge & Railroad Company through the purchase of two-thirds of its outstanding preferred and two-thirds of its capital stock from Terminal Shares, Inc. Included in the $6,000,000 purchase price are five subsidiary non-operating companies which own terminal property in North Kansas City, Mo.

At the same time this company asked the commission for authority to operate over tracks of the bridge company totaling 8.9 miles, and to construct some 3.5 miles of new track to connect with the tracks of the bridge company in North Kansas City, Mo.

NEW YORK, NEW HAVEN & HARTFORD.—*Reorganization Proceedings Reopened.*—Acting on a number of requests from various parties for a reconsideration of Division 4's recent decision promulgating a plan of reorganization for this company and the Boston & Providence under section 77 of the Bankruptcy Act, the full commission has assigned the case for oral argument before it on June 27 in Washington, D. C.

NEW YORK, NEW HAVEN & HARTFORD.—*Reorganization Plan.*—The Pennsylvania, which holds some 300,000 shares of common stock of this road which it purchased at a cost of $190,000,000, has filed a petition with the I. C. C. asking reargument before the whole Commission of the proposed reorganization of the New York, New Haven & Hartford. The P. R. R. petition takes especial exception to the finding of Division 4 in its proposed plan that the equity of stockholders has no value, declaring that due consideration must be given to the past and future earning power of the property and not merely the present. "Obviously, the years 1933 to 1938 constitute scarcely more than the 'present,' i. e., current earnings, particularly where they are all part of the present business depression. To exclude for all time the $190,000,000 contribution by the common stockholders, merely because of the inability of the New Haven to realize normal earnings in a wholly abnormal period does not constitute a compliance with the basic principles of the Bankruptcy Act."

The petition goes on to point out that the New Haven has substantially increased its operating efficiency and "will continue to secure greater net out of each dollar of operating revenues in the future than it has in the past;" that it has been found in a study by Professor C. B. Breed, of the Massachusetts Institute of Technology, that the New Haven "stands to recover" annually more than $9,000,000 of the $23,000,000 of gross revenues for freight now moved by motor transport in Connecticut, Rhode Island and Massachusetts, because increasing truck costs are "tending to return traffic to the New Haven."

PENNSYLVANIA-DELAWARE & HUDSON.—*Purchase by the Wilkes-Barre Connecting.*—The Wilkes-Barre Connecting has been authorized by Division 4 of the Interstate Commerce Commission to purchase 1.3 miles of line from the Wilkes-Barre & Eastern located in Dorrancetown, Pa.

PITTSBURGH & WEST VIRGINIA.—*Notes and R. F. C. Loan.*—This company, in carrying out its plan to fund its entire floating debt, has asked the Interstate Commerce Commission to approve a plan whereby it would issue $7,400,000 of five-year four per cent secured notes, $4,070,000 of which would be given to the Reconstruction Finance Corporation as security for a loan of that amount, $3,000,000 to be sold to the Pennroad Corporation, and $330,000 to the Chemical Bank & Trust Company of New York City. The proceeds of the notes, together with money from the company's treasury, will be used to pay off outstanding loans totaling $7,454,961. The notes will be dated July 1, 1940 and will mature July 1, 1945.

ST. LOUIS SOUTHWESTERN.—*Passenger-Train Operation at Shreveport, La.*—This road has filed two applications with the Interstate Commerce Commission for approval of a plan whereby it would discontinue its passenger-train operations over the soon-to-be-abandoned tracks and station facilities of the Louisiana & Arkansas in Shreveport, La., and substitute in lieu therefor operations over facilities of the Kansas City, Shreveport & Gulf's Shreveport Union Depot.

SOUTHERN.—*Abandonment.*—This company has asked authority from the Interstate Commerce Commission to abandon its Walland branch extending from Maryville, Tenn., to Walland, 10.2 miles.

SOUTHERN.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon a line extending from Versailles, Ky., to Georgetown, 16.6 miles.

Average Prices of Stocks and Bonds

	June 4	Last week	Last year
Average price of 20 representative railway stocks..	21.33	24.40	29.44
Average price of 20 representative railway bonds..	51.54	51.81	59.46

Railway Officers

EXECUTIVE

E. C. McHugh, who has been appointed vice-president of the Union Railroad, with headquarters at East Pittsburgh, Pa., entered railroad service on January 1,

Johnston Studios

E. C. McHugh

1914, as clerk in the office of the president of the Bessemer & Lake Erie and the Union. On March 1, 1928, he became secretary to the president of these roads and on January 1, 1936, became assistant to president. On April 23, 1940, Mr. McHugh relinquished his latter position when he was elected vice-president of the Union.

W. W. Mayer, whose appointment as assistant to the vice-president in charge of real estate, purchases and insurance on the Pennsylvania was announced in the *Railway Age* of June 1, was born at Patterson, Pa. Mr. Mayer has been in the railroad service since 1899, starting as a real estate department collector at Mifflin, Pa., and subsequently serving in many different positions in that department. In 1920, he became real estate agent of the

W. W. Mayer

Southwestern region of the Pennsylvania, with headquarters at St. Louis, Mo., and was transferred in a similar capacity to the Central region, with headquarters at Pittsburgh, Pa., in 1923. Mr. Mayer became real estate agent of the Pennsylvania, in 1924 and in 1926 he became general real estate agent, which position he held until his recent appointment.

A. T. Mercier, vice-president of the Southern Pacific, with headquarters at San Francisco, Cal., has been appointed also president of the San Diego & Arizona Eastern, succeeding **F. L. Annable. D. J. Russell,** division superintendent on the Southern Pacific, with headquarters at Los Angeles, Cal., has been appointed also vice-president and general manager of the S. D. & A. E.

FINANCIAL, LEGAL AND ACCOUNTING

James S. McKibbin, local treasurer of the Pittsburgh & Lake Erie and the Lake Erie & Eastern, with headquarters at Pittsburgh, Pa., has retired, at his own request because of ill health, after 45 years of service. **E. E. Barton,** assistant local treasurer, has been appointed local treasurer, with headquarters as before at Pittsburgh, and **F. C. Wills** has been appointed assistant local treasurer at Pittsburgh. These officers will also serve in the capacity of transfer agent.

J. A. Russell, whose promotion to general real estate agent of the Pennsylvania, with headquarters at Philadelphia, Pa., and

J. A. Russell

with jurisdiction over the entire system was announced in the *Railway Age* of June 1, is a native of Philadelphia. Mr. Russell was graduated from Brown Preparatory School, and completed his education at the University of Pennsylvania, where he received the degree of Bachelor of Science in Civil Engineering in 1913. While pursuing his studies, he engaged in railroad work during summer vacations. In June, 1913, he entered the service of the Pennsylvania's water companies as assistant engineer, and in 1916, resigned to become an instructor in hydraulics, water supply and sewerage in the Civil Engineering department at the University of Pennsylvania, returning to the service of the water companies in 1917. Later in 1917, Mr. Russell was commissioned a second lieutenant in the Engineer Corps of the United States Army, and assigned as an assistant to the chief engineer, 86th division. He became first lieutenant in 1918, and shortly afterwards was promoted to the command of Company B, 311th Engineers, serving with that unit until the close of military service in July, 1919, following which he returned to his railroad work with the water companies. In 1924, he withdrew to engage in private civil engineering practice, and in 1925 re-entered the service of the water companies, becoming engineer of water service in 1929, and manager of water service, January 1, 1932.

OPERATING

Kimber R. Vought, assistant to the general manager of the Eastern region of the Pennsylvania, with headquarters at Philadelphia, Pa., has retired from active service.

R. H. Flinn, formerly general superintendent of the Western Pennsylvania division of the Pennsylvania, with headquarters at Pittsburgh, Pa., who has been on a leave of absence because of illness, has been appointed assistant to the general manager of the Central region, a newly created position, with headquarters at Pittsburgh.

L. L. McIntyre, superintendent of the Clinchfield Railroad, has been promoted to general superintendent, a newly created position, with headquarters as before at Erwin, Tenn., and **C. D. Moss,** trainmaster at Dante, Va., has been promoted to superintendent, with headquarters at Erwin, succeeding Mr. McIntyre. **W. T. Wohlford,** assistant trainmaster, has been promoted to trainmaster at Dante, replacing Mr. Moss.

A. E. Stoll, trainmaster on the Chicago, Burlington & Quincy at Ottumwa, Iowa, has been promoted to assistant superintendent, with headquarters at Omaha, Neb., succeeding **E. C. Hale,** who has been appointed trainmaster at Burlington, Iowa. Mr. Hale replaces **E. A. Rediske,** who has been transferred to Aurora, Ill., relieving **J. J. Ryan.** Mr. Ryan has been transferred to Ottumwa succeeding Mr. Stoll.

Severino Trejo Luna, relief superintendent on the National Railways of Mexico, and formerly superintendent of the Queretaro division, with headquarters at Mexico, D. F., has been appointed superintendent of the Pacific division, with headquarters at Acambaro, Gto., succeeding **Jose Diaz Leal,** who has been transferred to the Puebla division, with headquarters at Puebla, Pue. Mr. Leal replaces **Guillermo Castillo Baez,** who has been appointed relief superintendent, with headquarters at Mexico City.

James H. Brennan, whose retirement on June 1 as superintendent of telegraph of the St. Louis-San Francisco, with headquarters at Springfield, Mo., was announced in the *Railway Age* of June 1, was born at Marysville, Kan., on September 3, 1873. He began his railway career on October 1, 1887, in the telegraph department of the St. Joseph & Grand Island (now part of the Union Pacific), at Marysville, Kan., and subsequently entered the service of the

Western Union Telegraph Company as a telegraph operator at Lincoln, Neb., later going to Kansas City as telegraph operator for the Western Union Telegraph Company and the Postal Telegraph-Cable Company. He afterwards became manager for the Western Union at Las Vegas, N. M., and then wire chief at Santa Fe, N. M., Cleburne, Tex., and La Junta, Colo. On December 1, 1906, he was appointed assistant superintendent of telegraph of the St. Louis-San Francisco, with headquarters at Springfield, Mo., and in May, 1918, he was advanced to superintendent of telegraph, with the same headquarters, the position he held until his retirement.

George W. Elste, Jr., chief clerk in the office of the vice-president in charge of operation of the Baltimore & Ohio, with headquarters at Baltimore, Md., has been appointed superintendent of the safety department, succeeding **William W. Wood,** who died on December 23, 1938. Mr. Elste was born on September 25, 1896, at Joppa, Md. In April, 1913, he entered the service of the Baltimore & Ohio as stenographer in the general freight offices at Baltimore, and has since been connected with that road. He was appointed secretary to operating vice-president on January 16, 1931, and advanced to chief clerk of the same office on January 1, 1939, which position he held until his recent appointment.

George W. Elste, Jr.

E. J. Gibbons has been appointed assistant superintendent of the Cleveland division of the New York Central, with headquarters at Cleveland, Ohio. **E. C. Johnson** has been appointed trainmaster of the Cleveland division, with headquarters at Collinwood, Ohio. **J. R. Todd,** superintendent of the Erie division at Erie, Pa., has retired, at his own request, after 48 years of service, and **J. J. Frawley,** assistant superintendent of the Erie division, has been appointed superintendent of that division, with headquarters as before at Erie, Pa. **E. G. Wright,** assistant superintendent, with headquarters at Cleveland, Ohio, has been transferred to the Erie division, with headquarters at Erie.

R. C. McIntyre, who has been appointed general manager of the Union Railroad, with headquarters at East Pittsburgh, Pa., entered railroad service with the Pennsylvania as locomotive fireman in October, 1901. He later worked as locomotive fireman and locomotive engineer with the Pittsburgh & Lake Erie. Mr. McIntyre entered the service of the Union on March 27, 1911, as machinist helper. He was appointed assistant master mechanic on May 1, 1926 and master mechanic on May 1, 1931. On January 1, 1934, he became superintendent of motive power, which position he held until his appointment, on April 23, as general manager.

R. C. McIntyre

L. A. Grubbs, superintendent of the Clifton Forge division of the Chesapeake & Ohio, with headquarters at Clifton Forge, Va., has been appointed general superintendent of the Eastern General division, succeeding **J. R. Cary,** who has retired, at his own request, after 60 years of affiliation with the railroad industry. **G. P. Gibbs,** assistant superintendent, with headquarters at Hinton, W. Va., succeeds Mr. Grubbs as superintendent of the Clifton Forge division.

Guy R. Buchanan, whose promotion to division superintendent on the Atchison, Topeka & Santa Fe, with headquarters at Chanute, Kan., was announced in the *Railway Age* of May 11, was born at Thayer, Kan., on May 20, 1893, and entered railway service on March 3, 1910, as a timekeeper on the Santa Fe at Chanute. On September 3, 1910, he resigned but returned to the Santa Fe on March 5, 1912, as a telegrapher apprentice at Thayer. On April 1, 1913, he was promoted to telegrapher, and served at various points on the Southern Kansas division. He was promoted to trick dispatcher at Chanute on September 1, 1916, and on August 13, 1917, he was advanced to night chief dispatcher. Mr. Buchanan was appointed day chief dispatcher on November 30, 1928, and on October 1, 1937, he was advanced to trainmaster, with headquarters at Chanute. On January 1, 1940, he was promoted to acting superintendent of the Southern Kansas division, with the same headquarters, the position he held until his recent promotion, which was effective on May 5.

Guy R. Buchanan

TRAFFIC

C. P. Gaither, foreign freight agent of the Seaboard Air Line, with headquarters at Norfolk, Va., has retired.

A. C. Stickley, general agent for the Northern Pacific at Victoria, B. C., has been appointed general agent, passenger department, at Portland, Ore., succeeding **H. G. Smith,** who retired on May 29.

P. K. Yonge, general agent and agriculturist for the Denver & Rio Grande Western at Grand Junction, Colo., has been appointed director of agriculture, with the same headquarters, a change of title.

R. J. Tozer, general agent for the Northern Pacific at San Francisco, Cal., has been promoted to general freight agent, with headquarters at Chicago, succeeding **J. H. Brinkerhoff,** assistant freight traffic manager at that point, who has retired.

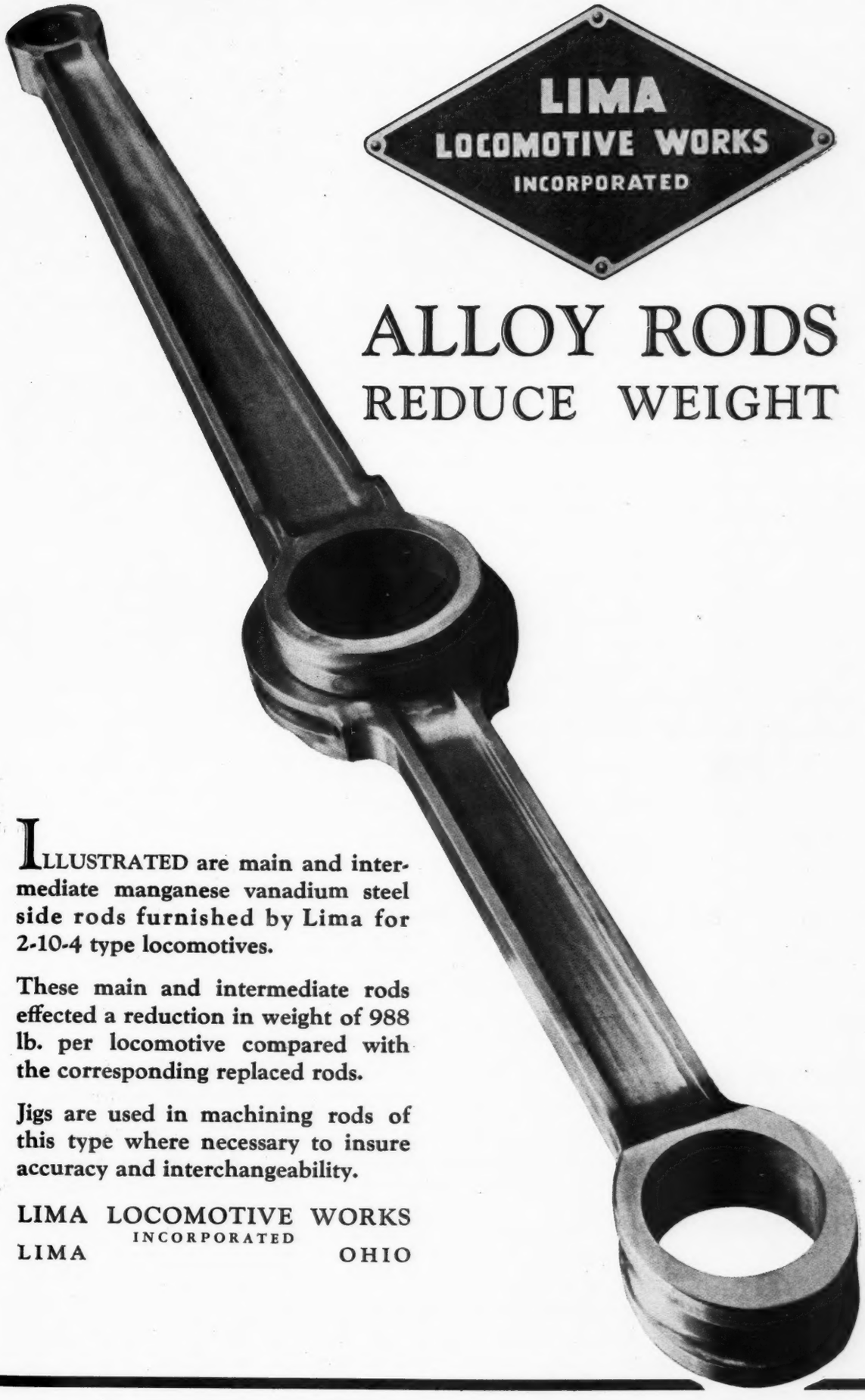
Joe M. Hall, passenger traffic agent on the Nashville, Chattanooga & St. Louis, at Nashville, Tenn., has been promoted to division passenger agent, with headquarters at Memphis, Tenn., succeeding **H. C. Davis,** who has retired.

W. W. Morfa, assistant western dairy agent on the New York Central system, with headquarters at Chicago, has been promoted to western dairy agent, with the same headquarters, succeeding **D. P. Skinner,** deceased.

Miss Nelle M. Orr, chief clerk for the Strachan Shipping Company at Memphis, Tenn., has resigned from that position in order to become traffic representative in charge of the Southern office of the Boston & Maine, at Memphis. This is a new position, created in accordance with the establishment by the Boston & Maine of an off-line office at Memphis for the convenience of shippers and receivers of freight in Tennessee, Mississippi, Arkansas, Louisiana and Alabama.

James E. Payne, traffic manager on the St. Louis-San Francisco, with headquarters at Tulsa, Okla., has been promoted to assistant to the general traffic manager, a newly created position, with headquarters at St. Louis, Mo. **Joseph W. Mahanay,** general agent at Atlanta, Ga., has been promoted to traffic manager at Tulsa, relieving Mr. Payne, and **Hoyt D. Sweetin,** general agent at Little Rock, Ark., has been transferred to Atlanta, replacing Mr. Mahanay. **O. P. Rainey,** soliciting freight agent at Tulsa, has been

Continued on next left-hand page



LIMA
LOCOMOTIVE WORKS
INCORPORATED

ALLOY RODS
REDUCE WEIGHT

ILLUSTRATED are main and intermediate manganese vanadium steel side rods furnished by Lima for 2-10-4 type locomotives.

These main and intermediate rods effected a reduction in weight of 988 lb. per locomotive compared with the corresponding replaced rods.

Jigs are used in machining rods of this type where necessary to insure accuracy and interchangeability.

LIMA LOCOMOTIVE WORKS
INCORPORATED
LIMA OHIO

promoted to general agent at Little Rock, succeeding Mr. Sweetin.

H. R. Henderson has been appointed assistant general freight agent on the Northern Pacific at Seattle, Wash. **A. E. Freeman,** assistant to the western traffic manager at Seattle, has been promoted to assistant general freight agent at that point. **L. A. Anderson,** traveling freight agent at Denver, Colo., has been promoted to general agent at that point, a change in title.

K. Elliott, division freight agent of the Canadian Pacific, with headquarters at St. John, N. B., has been promoted to division freight agent at Montreal, Que., succeeding **A. O. Secord,** who has retired on pension after 41 years of service with this road. **F. A. Duff,** traveling freight agent, with headquarters at St. John, has been appointed district freight agent, with headquarters at Ottawa, Ont., succeeding **R. A. Robinson,** who succeeds Mr. Elliott as division freight agent at St. John.

Victor B. Gilman, general agent for the Texas & Pacific at Chicago, has been promoted to assistant general freight agent, a newly created position, with headquarters at Dallas, Tex. **H. A. Lowry,** general agent at St. Louis, Mo., has been transferred to Chicago, succeeding Mr. Gilman, and **T. E. Gary,** general agent at Detroit, Mich., has been transferred to St. Louis, replacing Mr. Lowry. **W. L. McMurry,** general agent at Alexandria, La., has been transferred to Detroit, relieving Mr. Gary, and **H. B. Smith,** traveling freight agent at Dallas, has been promoted to general agent at Alexandria, succeeding Mr. McMurry.

C. E. Muller, freight traffic manager of the Seaboard Air Line, has been appointed assistant chief freight traffic officer (a newly created position), with headquarters as before at Norfolk, Va. **J. P. Derham, Jr.,** assistant freight traffic manager, with headquarters at Jacksonville, Fla., has been transferred to Norfolk, Va., succeeding **F. H. Bryant,** who succeeds Mr. Muller as freight traffic manager, at Norfolk, Va. **E. H. Hatcher,** has been appointed division freight agent, with headquarters at Jacksonville, succeeding **E. H. Brown,** who succeeds Mr. Derham as assistant freight traffic manager at Jacksonville.

ENGINEERING AND SIGNALING

V. B. Elliott, construction engineer of the Clinchfield Railroad, with headquarters at Erwin, Tenn., has been appointed chief engineer, with the same headquarters, a change in title.

MECHANICAL

William H. Taylor, general car foreman on the Atchison, Topeka & Santa Fe at Clovis, N. M., retired on June 1.

F. J. Swanson, general car foreman on the Chicago, Milwaukee, St. Paul & Pacific at Milwaukee, Wis., has been promoted to general car department supervisor, with headquarters at Chicago, succeeding **William Snell,** who retired on May 29.

Philip Baker has been appointed assistant superintendent of motive power of the Lehigh Valley, with headquarters at

Philip Baker

Sayre, Pa. A biographical sketch of Mr. Baker's railway career was published in the *Railway Age* of May 25, page 960.

OBITUARY

James Curtis Johnson, retired superintendent of telegraph of the Pennsylvania, died on May 30, at the age of 74.

E. L. Smithers, retired vice-president of the Louisville & Nashville, died on June 4, at the age of 72.

Michael Hall Dorsett, freight traffic manager for the Atlantic Coast Line, with headquarters at Jacksonville, Fla., died on May 31, at the age of 55.

Andrew L. Horst, president of the Cambria & Indiana, with headquarters at Philadelphia, Pa., died on May 29, at the age of 62. Mr. Horst was born at Lebanon, Pa., on March 9, 1878. He was educated at Harvard College and the School of Political Science, Columbia University. Mr. Horst entered railroad service with the Chicago, Burlington & Quincy and from February, 1903, to February, 1906, he was employed in the general manager's office of that road. On the latter date he entered the service of the Lake Shore & Michigan Southern (now part of New York Central), the Cleveland, Cincinnati, Chicago & St. Louis and the Michigan Central as assistant chief clerk in the office of the operating vice-president of those companies, with headquarters at Chicago. He became statistician to the senior vice-president of the New York Central Lines at New York, in February, 1907, and in 1909 was promoted to statistician to the president of the same road. From 1914 to 1925, Mr. Horst was engaged in valuation work as head of the Division of Original Cost under the general valuation counsel of the New York Central Lines, and from the later date until 1928, he served in a consulting capacity to the valuation counsel of the same road. He was appointed assistant to the president of the Cambria & Indiana in February, 1925, having general supervision over all departments of that company. In March, 1925, he was also appointed general freight and passenger agent of the company, and in January, 1926, he was also elected assistant treasurer, serving in that capacity until June 19, 1929, when he was elected executive vice-president, later becoming president. Mr. Horst was also president of the Cambria Improvement Company, which is a subsidiary of the Cambria & Indiana. In December, 1927, he became a member of the executive board of the American Short Line Railroad Association.

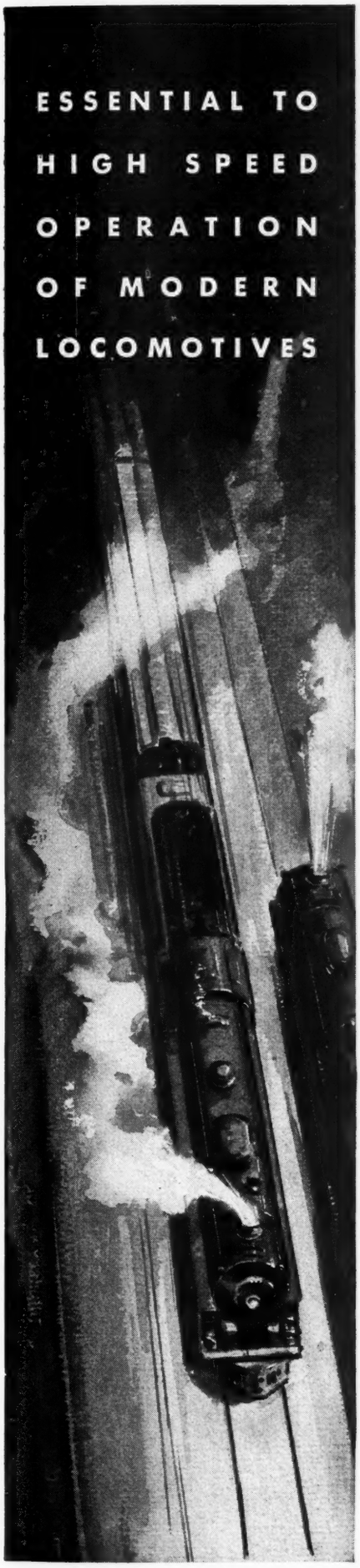
John V. Neubert, chief engineer maintenance of way of the New York Central System, with headquarters at New York, died on June 4 following a long illness. Mr. Neubert had been identified with the

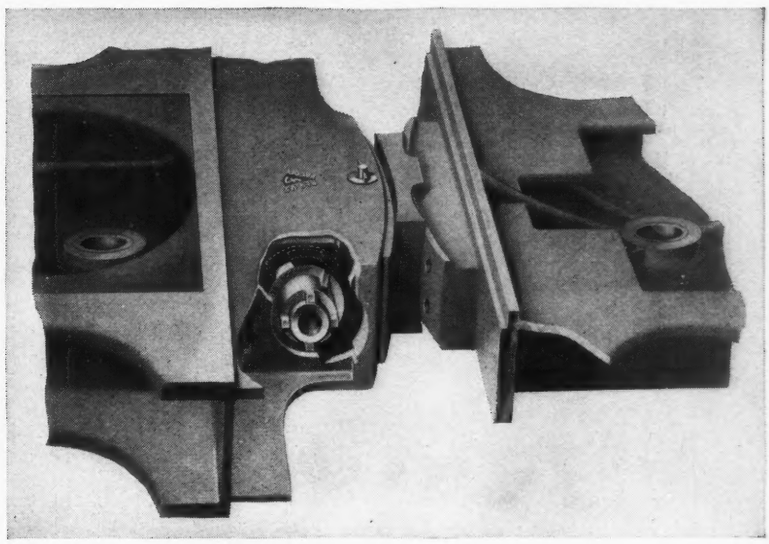
John V. Neubert

New York Central continuously for nearly 41 years. He was born on July 18, 1876, at Kittanning, Pa., and was graduated from Pennsylvania State College in 1899. He entered railway service with the New York Central & Hudson River (now the New York Central) on July 3, 1899, as a clerk. In the following month he was transferred to the engineering department where he served as chainman, rodman and inspector until September, 1900, when he was advanced to assistant supervisor of track. In May, 1902, Mr. Neubert was promoted to supervisor of track and in January, 1903, he became assistant engineer in the office of the division engineer at Albany, N. Y. Four years later Mr. Neubert was advanced to division engineer at Albany, being further promoted to engineer of track, Lines East of Buffalo, exterior zone, in April, 1909. In July, 1920, he became engineer maintenance of way of the same territory, with headquarters at New York. Seven years later, Mr. Neubert was promoted to chief engineer maintenance of way of the New York Central, including the Lines East and West of Buffalo and the Ohio Central Lines, with headquarters as before at New York. In 1931, his jurisdiction was extended over the Cleveland, Cincinnati, Chicago & St. Louis and the Michigan Central. Mr. Neubert had been active in the affairs of a number of railroad associations, including the American Railway Engineers Association, of which he served as president in 1932-33.

Table of Revenues and Expenses begins on next left-hand page

ESSENTIAL TO HIGH SPEED OPERATION OF MODERN LOCOMOTIVES





Modern power, with long overhang over the trailing truck, must have freedom of buffer movement in every direction, and full faced contact of the buffer surfaces at all times.

It is absolutely necessary on curved track, and safer at high speeds.

Franklin E-2 Radial Buffer provides this universal movement and full contact of the buffer surfaces. It also provides high frictional resistance to compression that effectively dampens oscillation between engine and tender and eliminates lost motion and subsequent destructive shocks to drawbars and pins.

Franklin E-2 Radial Buffer effectively reduces locomotive maintenance costs and adds immeasurably to the safety of high speed operation of modern locomotives.

Franklin Compensator and Snubber, twin of the Radial Buffer, is equally essential for that other important job of protecting the foundation of the locomotive.

No locomotive device is better than the replacement part used for maintenance. Genuine Franklin repair parts assure accuracy of fit and reliability of performance.

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK CHICAGO MONTREAL

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1940

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of: Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Operating income	Net railway operating income: 1940	1939
Akron, Canton & Youngstown	April	171	$162,868	$23	$171,075	$23,027	$21,478	$14,464	$55,841	$124,167	72.6	$46,908	$33,421	$24,424	$1,123
	4 mos.	171	713,078	125	743,289	92,210	82,000	55,604	229,470	496,180	66.8	247,109	187,184	137,767	56,493
Alton	April	959	806,341	203,513	1,194,583	220,594	203,482	46,871	521,327	1,061,658	88.9	132,925	31,272	—115,857	—75,299
	4 mos.	959	3,446,306	847,798	5,061,692	612,833	918,462	180,452	2,209,996	4,207,229	83.1	854,463	456,230	—188,872	—126,020
Atchison, Topeka & Santa Fe System	April	13,414	10,619,148	1,264,392	13,029,407	2,185,285	3,296,357	487,886	4,678,996	11,008,877	84.5	2,020,530	793,260	805,296	230,192
	4 mos.	13,417	38,189,221	5,328,898	48,131,469	7,330,068	11,862,259	1,839,173	18,502,184	41,021,399	85.2	7,110,070	2,252,357	2,215,099	222,524
Atlanta & West Point	April	93	109,251	22,379	152,377	24,212	28,677	8,370	63,745	135,681	89.0	16,696	5,041	—8,501	—10,052
	4 mos.	93	437,338	95,717	623,220	90,796	106,776	33,889	262,436	537,327	86.2	85,893	39,302	10,564	—29,472
Western of Alabama	April	133	110,227	21,358	148,210	21,867	32,373	7,935	56,378	128,166	86.5	20,044	7,607	8,344	17,765
	4 mos.	133	416,302	93,577	578,231	85,148	121,226	32,376	231,574	508,741	88.0	69,490	19,431	24,328	32,675
Atlanta, Birmingham & Coast	April	639	225,514	25,830	275,219	50,992	51,796	23,619	121,791	266,952	97.0	8,267	—17,150	—42,710	—18,601
	4 mos.	639	932,177	167,599	1,189,521	202,625	202,590	95,518	507,637	1,080,561	90.8	108,960	5,823	—87,068	17,392
Atlantic Coast Line	April	5,101	3,118,771	891,713	4,464,508	469,115	907,687	146,747	1,779,865	3,526,101	79.0	938,407	338,407	61,832	583,260
	4 mos.	5,102	12,804,340	4,314,670	19,044,060	1,827,672	3,475,022	670,534	7,373,291	14,324,311	75.2	4,719,749	2,569,749	1,543,041	2,494,950
Charleston & Western Carolina	April	343	234,453	1,458	240,480	28,783	43,540	9,110	76,753	163,385	67.9	77,095	52,095	46,914	20,823
	4 mos.	343	880,806	5,450	904,416	107,960	188,739	35,666	296,703	651,084	72.0	253,332	158,332	138,621	144,878
Baltimore & Ohio	April	6,382	11,128,947	751,086	12,704,855	1,260,713	2,706,364	424,112	4,842,447	9,803,563	77.2	2,901,292	1,964,033	1,712,879	11,044
	4 mos.	6,382	46,942,809	2,993,382	53,111,916	4,639,680	12,577,476	1,593,489	20,266,717	41,471,716	78.1	11,640,200	7,828,032	6,576,605	4,967,712
Staten Island Rapid Transit	April	24	58,872	65,998	132,374	12,677	24,725	1,309	76,612	126,974	95.9	5,400	—19,810	—25,006	—24,028
	4 mos.	24	230,557	258,255	517,258	37,457	96,507	4,545	312,999	496,906	96.1	20,352	—85,507	—109,152	—123,990
Bangor & Aroostook	April	603	565,168	14,349	597,783	81,188	86,899	3,426	140,537	336,023	56.2	261,760	197,377	183,393	151,095
	4 mos.	603	2,191,670	64,501	2,328,457	345,079	354,703	19,457	568,858	1,387,702	59.6	940,755	703,689	664,042	721,092
Bessemer & Lake Erie	April	224	771,921	460	778,578	136,521	313,325	13,332	174,098	670,233	86.1	108,345	56,521	98,587	—134,978
	4 mos.	224	2,703,053	2,366	2,739,316	375,289	1,185,584	50,561	692,708	2,432,120	88.8	307,196	76,339	286,976	—335,874
Boston & Maine	April	1,910	2,695,882	480,616	3,625,248	460,557	597,055	46,667	1,481,254	2,739,554	75.6	885,694	571,446	369,706	332,288
	4 mos.	1,910	11,100,016	2,269,602	15,303,429	1,968,536	2,369,706	247,942	6,311,715	11,517,417	75.3	3,786,012	2,584,354	1,684,448	1,553,726
Burlington, Rock Island	April	255	66,836	17,738	92,067	16,351	18,860	4,292	48,456	97,234	105.6	—5,167	—15,073	—19,635	—29,109
	4 mos.	255	319,715	69,562	420,719	65,739	73,742	17,934	204,714	400,839	95.3	19,880	—20,865	—46,702	—62,164
Cambria & Indiana	April	37	112,299	.....	112,380	6,811	63,417	611	11,934	89,391	79.54	22,989	—1,009	63,066	—26,215
	4 mos.	37	521,459	.....	521,835	23,623	183,676	1,843	54,617	288,398	55.27	233,437	99,980	379,802	295,214
Canadian Pacific Lines in Maine	April	234	282,987	12,067	308,523	35,260	54,268	5,976	87,662	189,691	61.5	118,832	107,357	87,407	70,649
	4 mos.	234	1,307,965	48,386	1,405,901	105,964	211,121	29,587	437,969	807,744	57.4	598,157	551,874	450,646	270,983
Canadian Pacific Lines in Vermont	April	91	95,565	6,452	112,645	13,241	23,502	2,168	64,203	106,544	94.6	6,101	—931	—22,209	—40,504
	4 mos.	91	337,600	34,672	412,657	47,791	102,738	10,786	271,615	445,172	107.9	—32,515	—61,273	—141,648	—205,544
Central of Georgia	April	1,871	1,108,237	100,082	1,368,365	187,686	264,368	53,305	593,145	1,178,057	86.1	190,308	48,735	23,611	—4,063
	4 mos.	1,871	4,250,960	455,857	5,356,040	738,074	1,072,296	217,320	2,394,215	4,739,576	88.5	616,464	123,723	38,686	93,778
Central of New Jersey	April	710	2,215,929	320,910	2,712,705	228,063	658,145	48,444	1,136,629	2,169,135	80.0	543,570	95,176	—61,212	105,198
	4 mos.	710	9,524,981	1,308,477	11,553,840	895,103	2,521,251	186,313	4,827,667	8,801,552	76.2	2,752,288	1,115,451	346,134	136,091
Central Vermont	April	422	514,627	14,673	563,233	65,210	103,457	11,232	230,855	430,144	76.4	133,089	108,668	69,096	28,719
	4 mos.	422	1,833,444	118,665	2,098,792	249,126	370,259	46,127	912,173	1,653,544	78.8	445,248	350,305	201,407	—50,269
Chesapeake & Ohio	April	3,115	9,918,304	270,752	10,599,950	1,084,934	2,096,154	202,688	2,493,827	6,190,951	58.4	4,408,999	3,135,441	3,004,369	—601,427
	4 mos.	3,116	39,284,917	965,718	41,546,030	4,035,360	8,270,716	819,208	10,189,734	24,554,175	59.1	16,991,855	11,889,475	12,302,652	6,250,450
Chicago & Eastern Illinois	April	925	900,263	98,206	1,138,498	155,265	240,649	57,227	495,101	1,010,464	88.8	128,034	38,034	86,006	32,624
	4 mos.	925	3,966,580	521,107	5,082,121	576,106	967,199	226,169	2,127,861	4,154,570	81.7	927,551	589,551	78,518	79,433
Chicago & Illinois Midland	April	131	317,685	534	341,213	47,397	64,350	19,450	84,433	235,736	69.1	105,477	73,624	71,044	64,986
	4 mos.	131	1,372,934	2,611	1,441,950	171,808	276,907	83,282	374,311	984,717	68.3	457,233	325,026	307,344	254,892
Chicago & North Western	April	8,327	4,974,911	764,747	6,504,896	985,076	1,510,660	184,756	2,816,950	5,815,804	89.4	689,092	118,615	—37,429	—499,384
	4 mos	8,327	19,831,139	3,277,829	26,188,915	3,775,456	5,873,695	724,639	11,814,953	23,461,813	89.6	2,727,102	321,597	—745,860	—1,620,503
Chicago, Burlington & Quincy	April	9,004	5,777,229	566,091	7,173,520	1,248,221	1,315,159	253,911	2,774,647	5,895,139	82.2	1,278,381	517,975	200,672	43,014
	4 mos.	9,004	24,082,987	2,499,512	29,860,835	3,281,582	5,750,865	980,345	11,723,961	22,910,297	76.7	6,950,538	3,906,690	2,637,055	1,941,212
Chicago Great Western	April	1,502	1,299,723	35,481	1,436,809	184,116	238,613	60,095	541,080	1,076,421	74.9	360,388	267,112	85,710	74,650
	4 mos.	1,502	5,182,352	148,776	5,743,842	766,955	986,537	238,971	2,277,277	4,478,187	78.0	1,265,655	886,010	163,449	143,960
Chicago, Indianapolis & Louisville	April	549	626,866	37,111	731,961	68,403	124,953	28,071	274,177	530,551	72.5	201,410	159,471	63,665	—26,012
	4 mos.	549	2,661,165	159,590	3,091,800	266,369	536,252	114,156	1,185,286	2,243,416	72.6	848,384	677,107	288,785	—286,733

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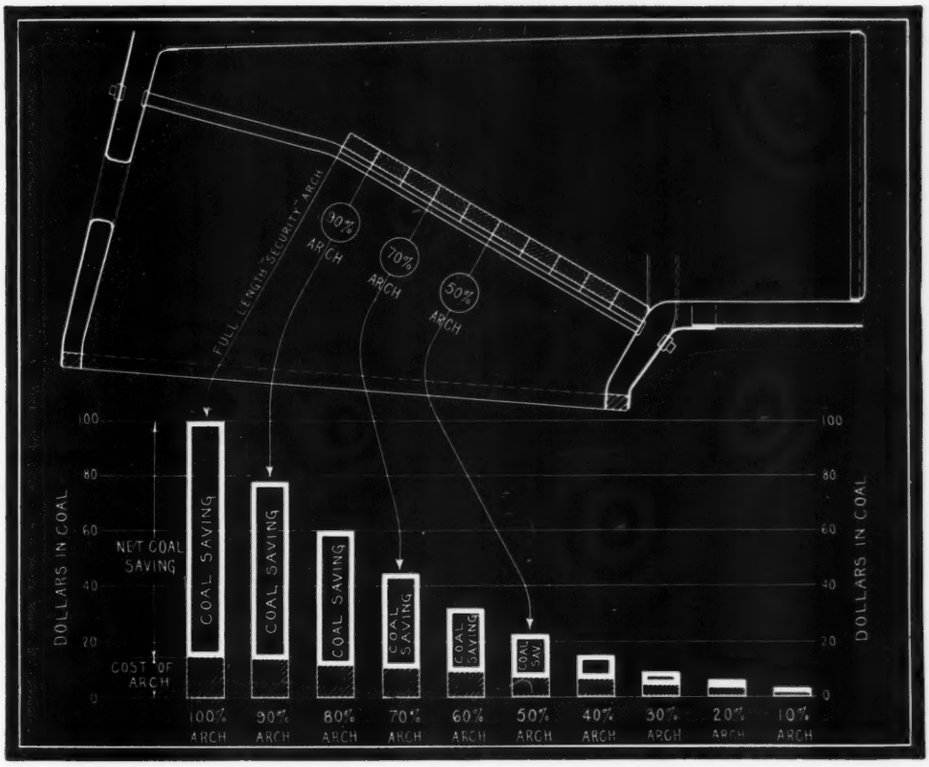


THE EFFECT OF ABBREVIATED ARCHES ON FUEL SAVING

LET THE ARCH HELP YOU SAVE

With the emphasis being placed on saving every railroad dollar, the locomotive Arch becomes increasingly important.

Regardless of the amount of traffic handled, the locomotive Arch saves enough fuel to pay for itself ten times over.

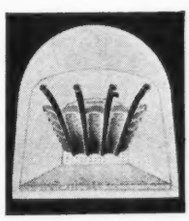
Be sure that every locomotive leaving the roundhouse has its Arch complete with not a single brick nor a single course missing.

In this way, you will get more work for each dollar of fuel expense. Skimping on Arch Brick results in a net loss to the railroad.

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

HARBISON-WALKER REFRACTORIES CO.

Refractory Specialists



AMERICAN ARCH CO.
INCORPORATED
60 EAST 42nd STREET, NEW YORK, N. Y.
Locomotive Combustion Specialists

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1940—CONTINUED

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Operating income	Net railway operating income 1940	1939
Chicago, Milwaukee, St. Paul & Pacific	April	10,882	$7,216,864	$504,194	$8,525,491	$1,475,684	$1,733,303	$223,043	$3,252,906	$7,044,025	82.6	1,481,446	782,466	418,424	—5,807
	4 mos.	10,884	28,944,139	2,285,615	34,420,687	4,044,936	6,773,187	878,303	13,595,555	26,790,561	77.8	7,630,126	4,853,126	3,314,443	792,445
Chicago, Rock Island & Pacific	April	7,909	4,952,433	600,778	6,106,449	825,841	1,199,818	259,025	2,361,678	4,960,665	81.2	1,145,784	669,715	243,420	—230,396
	4 mos.	7,878	19,712,928	2,574,819	24,580,392	2,837,546	4,895,948	1,025,688	10,035,231	20,121,375	81.9	4,459,017	2,507,241	898,381	290,050
Chicago, St. Paul, Minneapolis & Omaha	April	1,629	1,036,293	109,267	1,235,406	175,837	261,838	38,059	617,423	1,158,593	93.8	76,813	—34,490	—128,084	—86,517
	4 mos.	1,629	4,445,744	471,719	5,272,992	597,594	1,028,793	155,133	2,664,091	4,719,887	89.5	553,105	97,866	—340,783	—439,963
Clinchfield Railroad	April	308	734,061	3,079	743,485	49,322	122,843	18,337	131,464	337,791	45.4	405,694	314,611	335,023	172,560
	4 mos.	308	3,069,233	13,386	3,104,927	153,473	471,312	76,204	558,871	1,323,201	42.6	1,781,726	1,416,871	1,473,756	989,551
Colorado & Southern	April	786	426,109	25,513	498,329	65,559	95,439	14,789	203,647	408,175	81.9	90,154	13,159	4,371	7,511
	4 mos.	787	1,722,114	108,127	2,029,573	215,684	385,444	56,876	852,391	1,618,860	79.8	410,713	101,763	32,322	—43,482
Fort Worth & Denver City	April	902	416,209	43,596	463,648	74,454	79,507	18,823	167,489	365,641	78.9	98,007	60,264	28,416	6,179
	4 mos.	902	1,674,540	174,880	1,820,501	219,704	327,418	74,986	668,074	1,410,689	77.5	409,812	258,998	140,705	16,985
Columbus & Greenville	April	168	95,714	4,707	105,770	13,480	12,910	4,264	37,038	78,332	74.1	27,438	16,798	17,212	19,672
	4 mos.	168	364,584	19,952	408,310	63,395	55,342	17,329	147,378	328,238	80.4	80,072	24,094	24,363	65,642
Delaware & Hudson	April	846	1,853,855	58,820	1,993,738	234,716	360,179	42,329	768,778	1,490,064	74.7	503,674	350,847	315,830	418,666
	4 mos.	846	7,727,049	330,164	8,404,663	899,609	1,593,236	167,470	3,199,244	6,199,477	73.8	2,205,186	1,589,485	1,494,265	1,603,380
Delaware, Lackawanna & Western	April	995	3,215,268	491.751	4,156,729	282,356	799,723	111,289	1,886,253	3,229,372	77.7	927,357	482,157	437,367	563,675
	4 mos.	995	13,481,461	2,075,424	17,242,015	1,037,643	3,409,913	439,251	8,059,594	13,558,046	78.6	3,683,969	1,935,869	1,650,624	1,503,112
Denver & Rio Grande Western	April	2,554	1,628,802	105,916	1,824,367	339,126	452,943	78,090	663,244	1,616,580	88.6	207,787	—2,452	—66,850	—195,851
	4 mos.	2,554	6,691,398	391,133	7,459,785	1,038,337	2,008,543	293,169	2,815,938	6,489,725	87.0	970,060	126,673	—87,775	—181,922
Denver & Salt Lake	April	232	108,869	4,346	122,094	26,959	43,246	2,405	48,771	130,664	107.0	—8,570	—33,338	16,348	16,125
	4 mos.	232	743,178	25,302	803,655	74,069	180,035	11,049	252,855	557,803	69.4	245,852	145,401	323,475	211,026
Detroit & Mackinac	April	242	49,638	1,496	57,562	8,903	11,431	845	22,811	47,639	82.8	9,923	6,712	4,371	—3,763
	4 mos.	242	172,042	8,669	206,777	32,670	46,507	3,486	93,805	189,718	91.7	17,059	4,166	—6,124	—607
Detroit & Toledo Shore Line	April	50	305,452	.....	306,533	40,415	23,099	8,504	78,041	157,557	51.4	148,976	108,187	58,564	—5,835
	4 mos.	50	1,416,312	.....	1,421,888	93,752	95,671	34,731	357,262	611,557	43.0	810,331	624,534	389,573	212,396
Detroit, Toledo & Ironton	April	472	593,287	133	607,486	76,107	99,560	12,288	137,076	345,785	56.9	261,701	188,501	171,441	113,471
	4 mos.	472	2,877,167	673	2,946,623	281,832	349,450	48,633	634,303	1,395,188	47.3	1,551,435	1,186,465	1,076,187	728,040
Duluth, Missabe & Iron Range	April	541	348,914	658	405,175	141,427	239,869	4,880	199,596	617,073	152.3	—211,898	—375,743	—372,876	—495,564
	4 mos.	541	673,659	5,801	792,080	476,760	872,054	17,159	665,595	2,154,633	272.0	—1,362,553	—1,996,062	—1,996,493	—2,185,062
Duluth, Winnipeg & Pacific	April	175	104,820	1,060	108,691	24,078	21,842	2,122	44,159	95,964	88.3	12,727	3,796	—10,835	—11,846
	4 mos.	175	451,687	4,048	467,618	81,798	84,311	8,452	191,916	379,720	81.2	87,898	50,338	—19,129	—37,764
Elgin, Joliet & Eastern	April	390	1,173,349	7	1,348,416	115,195	283,334	14,943	538,992	990,001	73.4	358,415	248,664	182,279	86,935
	4 mos.	390	5,586,941	65	6,413,686	507,899	1,215,038	58,596	2,524,890	4,448,219	69.4	1,965,467	1,464,849	1,081,100	887,167
Erie	April	2,268	5,396,440	334,801	6,172,644	575,725	1,283,767	177,230	2,453,530	4,761,657	77.1	1,410,987	846,387	543,975	774,411
	4 mos.	2,268	23,056,097	1,451,273	26,217,786	2,077,546	5,408,059	698,072	10,492,097	19,744,101	75.3	6,473,685	4,195,399	3,002,959	2,823,145
Florida East Coast	April	685	618,505	352,497	1,076,986	120,482	149,736	31,315	380,166	753,612	70.0	323,374	248,168	156,218	175,324
	4 mos.	685	2,419,006	1,946,649	4,881,899	425,816	633,648	125,209	1,615,549	3,142,742	64.4	1,739,157	1,436,821	1,187,166	1,292,745
Georgia Railroad	April	329	297,745	15,711	335,748	43,317	57,925	17,855	138,574	271,200	80.8	64,548	49,653	54,058	25,047
	4 mos.	329	1,106,764	50,907	1,252,379	146,399	210,700	71,923	561,209	1,044,971	83.4	207,408	148,163	173,800	170,161
Georgia & Florida	April	408	83,067	1,193	88,006	21,224	16,566	8,506	36,419	88,083	100.1	—77	—8,292	—12,260	—19,137
	4 mos.	408	339,553	4,657	358,271	90,367	63,951	34,283	150,427	360,267	100.6	—1,996	—34,973	—51,465	—58,508
Grand Trunk Western	April	1,029	1,953,197	62,977	2,127,058	245,077	396,393	39,756	812,617	1,564,103	73.5	562,955	437,234	348,673	—9,402
	4 mos.	1,029	7,590,332	274,568	8,413,441	964,733	1,585,266	161,016	3,304,411	6,294,207	74.8	2,119,234	1,612,858	1,261,670	330,849
Canadian National Lines in New England	April	172	111,179	2,881	126,992	29,489	37,228	1,520	65,643	139,876	110.1	—12,884	—28,979	—75,822	—52,149
	4 mos.	172	473,361	13,640	539,124	128,500	119,975	5,869	282,237	566,176	105.0	—27,052	—91,431	—267,245	—220,477
Great Northern	April	8,069	5,808,228	249,015	6,550,619	902,999	1,248,135	213,675	2,149,214	4,760,128	72.7	1,790,401	1,077,470	968,828	528,368
	4 mos.	8,069	20,370,348	1,101,506	23,369,534	2,834,753	5,023,359	784,162	8,798,461	18,396,311	78.7	4,973,223	2,194,237	1,713,602	64,278
Green Bay & Western	April	234	134,277	218	139,269	27,677	16,204	6,862	46,082	101,632	72.9	37,637	23,251	18,789	11,874
	4 mos.	234	537,457	1,102	558,218	88,279	65,298	27,833	194,482	395,832	70.9	162,386	106,293	87,136	77,435
Gulf & Ship Island	April	259	106,247	3,698	121,788	23,299	15,176	2,468	48,362	93,534	76.8	28,254	12,797	3,024	—7,944
	4 mos.	259	365,097	14,941	421,095	82,570	60,384	10,695	207,926	378,316	89.8	42,779	—21,384	—54,886	—68,724
Gulf, Mobile & Northern	April	827	535,268	14,230	574,287	73,700	90,758	37,547	160,258	394,996	68.8	179,291	129,291	89,683	100,195
	4 mos.	827	2,105,431	62,639	2,264,220	296,952	353,607	159,471	617,852	1,570,093	69.3	694,127	494,127	339,777	332,949

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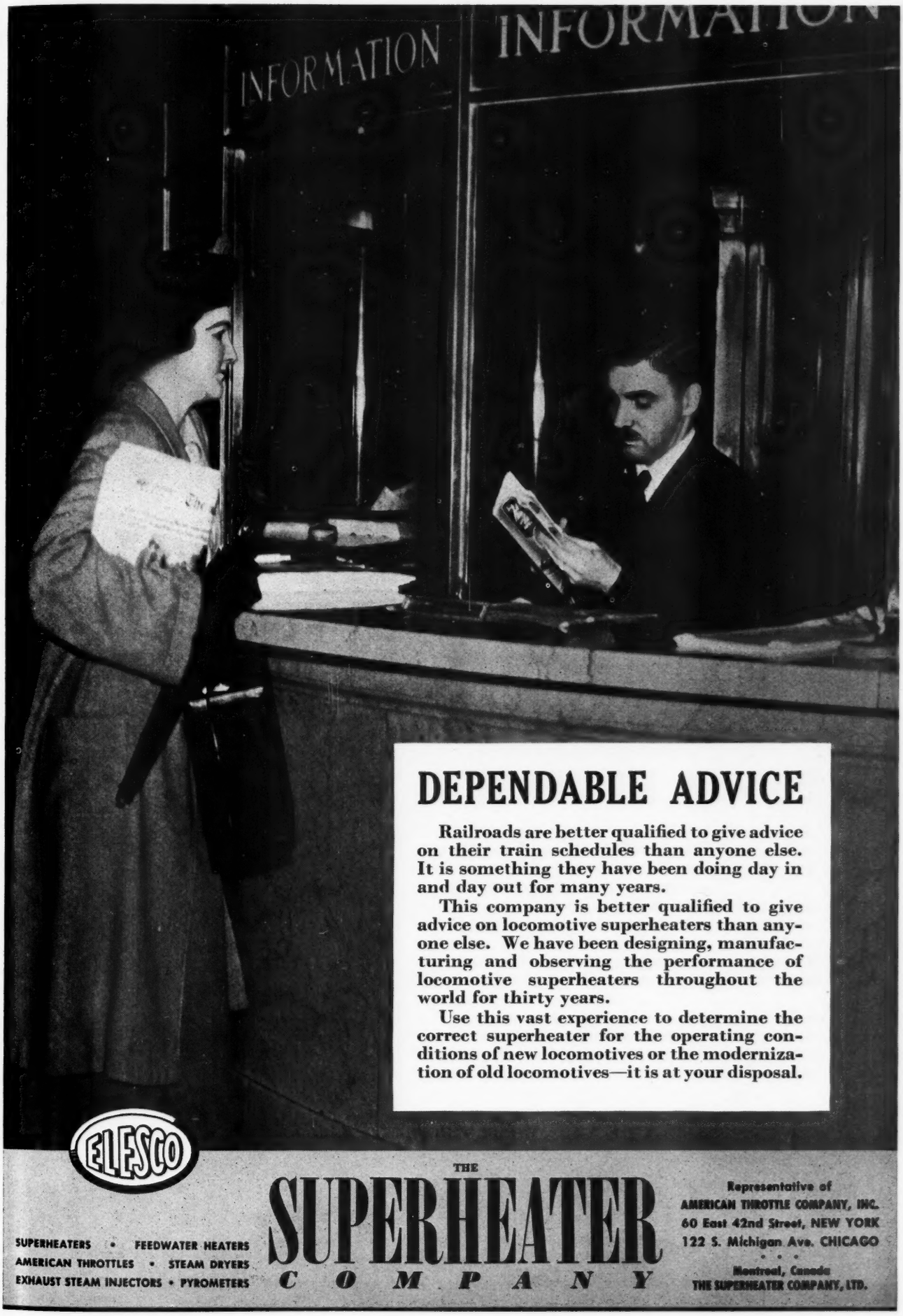

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THE SUPERHEATER COMPANY

Representative of
AMERICAN THROTTLE COMPANY, INC.
60 East 42nd Street, NEW YORK
122 S. Michigan Ave. CHICAGO

Montreal, Canada
THE SUPERHEATER COMPANY, LTD.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1940—CONTINUED

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Operating income	Net railway operating income 1940	Net railway operating income 1939
Illinois Central	April	4,949	$6,122,981	$675,654	$7,613,124	$875,628	$1,864,215	$194,124	$2,964,309	$6,239,274	82.0	$1,373,850	$661,265	$554,781	$1,082,290
	4 mos.	4,949	27,015,334	3,089,553	32,635,004	3,205,746	7,101,290	840,852	12,753,691	25,264,943	77.4	7,370,061	4,465,356	4,179,785	3,956,568
Yazoo & Mississippi Valley	April	1,608	1,043,548	48,472	1,182,378	116,243	210,010	30,041	476,322	879,652	74.4	302,726	161,654	76,808	18,179
	4 mos.	1,611	4,275,773	203,906	4,785,661	451,456	724,637	131,190	1,988,893	3,481,103	72.7	1,304,558	743,282	457,791	326,601
Illinois Central System	April	6,557	7,166,529	724,126	8,795,502	991,871	2,074,225	224,165	3,440,631	7,118,926	80.9	1,676,576	820,946	641,502	1,110,881
	4 mos.	6,560	31,291,107	3,293,459	37,420,665	3,657,202	7,825,927	972,042	14,742,584	28,746,046	76.8	8,674,619	5,200,753	4,671,228	4,321,320
Illinois Terminal	April	477	344,341	56,274	441,478	51,407	73,083	17,437	161,878	322,019	72.94	119,459	78,976	63,372	77,870
	4 mos.	479	1,524,931	242,598	1,923,061	197,180	290,977	68,448	687,659	1,315,669	68.42	607,392	425,948	335,244	269,907
Kansas City Southern	April	879	958,886	27,363	1,099,630	101,114	158,964	56,142	327,240	702,371	63.9	397,259	294,259	237,360	220,533
	4 mos.	879	4,104,749	99,671	4,652,281	404,248	654,936	225,343	1,385,164	2,900,775	62.4	1,751,506	1,349,506	1,121,269	979,096
Kansas, Oklahoma & Gulf	April	328	167,495	300	170,400	14,910	12,896	8,771	41,251	84,406	49.5	85,994	68,549	53,608	55,780
	4 mos.	328	743,373	1,334	756,473	46,631	49,593	34,818	165,935	334,654	44.2	421,819	345,395	281,824	284,212
Lake Superior & Ishpeming	April	156	89,898	43	106,295	20,614	26,349	544	27,077	81,102	76.3	25,193	—21,132	—20,599	—42,543
	4 mos.	156	169,796	206	190,978	69,492	113,659	2,303	89,437	299,199	156.7	—108,221	—221,060	—216,071	—245,018
Lehigh & Hudson River	April	96	128,522	.....	129,346	12,161	20,498	3,566	43,605	86,427	66.8	42,919	27,499	15,967	14,815
	4 mos.	96	519,059	.....	522,758	39,127	89,842	14,348	182,837	352,081	67.4	170,677	109,620	67,424	69,822
Lehigh & New England	April	190	345,665	.....	348,170	33,762	64,710	7,391	114,263	237,279	68.2	110,891	80,326	87,002	137,005
	4 mos.	190	1,335,424	.....	1,343,091	115,455	252,956	28,644	447,082	907,426	67.6	435,665	317,253	338,951	339,387
Lehigh Valley	April	1,282	3,191,620	121,786	3,532,661	249,381	690,304	110,305	1,566,611	2,733,985	77.4	798,676	487,684	267,804	688,970
	4 mos.	1,282	13,708,369	624,180	15,262,156	956,575	2,696,089	428,879	6,754,916	11,324,505	74.2	3,937,651	2,693,755	1,660,913	2,282,053
Louisiana & Arkansas	April	846	616,176	7,252	653,905	110,695	101,792	29,620	175,795	440,694	67.4	213,211	164,086	121,140	98,227
	4 mos.	846	2,488,498	27,695	2,621,261	366,226	381,436	119,854	739,846	1,708,931	65.2	912,330	698,553	511,322	384,841
Louisville & Nashville	April	4,871	6,707,134	466,302	7,688,696	850,135	1,807,549	178,837	2,626,863	5,743,193	74.7	1,945,503	1,211,308	1,378,706	238,701
	4 mos.	4,871	27,296,478	2,118,335	31,446,725	3,368,541	7,814,436	735,758	11,055,372	24,102,620	76.6	7,344,105	4,523,879	4,760,590	3,560,492
Maine Central	April	991	825,569	58,162	969,648	168,797	192,302	5,422	349,627	749,348	77.3	220,300	143,593	92,962	117,724
	4 mos.	991	3,668,631	253,644	4,263,718	585,569	778,913	40,671	1,524,063	3,063,176	71.8	1,200,542	886,464	677,967	636,238
Midland Valley	April	352	103,055	9	104,669	18,323	12,162	2,972	31,466	69,931	66.8	34,738	22,951	16,842	22,531
	4 mos.	352	439,643	24	447,492	46,643	34,382	10,749	129,107	244,715	54.7	202,777	157,599	123,133	116,684
Minneapolis & St. Louis	April	1,512	686,041	4,166	724,270	159,490	128,549	52,035	261,026	639,007	88.2	85,263	42,222	12,427	—38,674
	4 mos.	1,512	2,649,934	20,989	2,802,170	342,333	527,598	202,447	1,087,467	2,313,613	82.6	488,557	310,514	159,125	93,291
Minneapolis, St. Paul & Sault Ste. Marie	April	4,285	1,950,158	55,304	2,159,275	336,684	418,319	66,980	903,340	1,813,694	84.0	345,581	165,177	60,200	—122,926
	4 mos.	4,285	7,431,757	232,000	8,270,139	1,111,870	1,634,939	256,292	3,751,107	7,090,574	85.7	1,179,565	483,426	108,112	—794,210
Duluth, South Shore & Atlantic	April	550	153,061	6,731	173,117	30,682	35,179	7,116	78,603	158,132	91.3	14,985	1,243	—1,102	—40,009
	4 mos.	550	550,024	27,289	625,264	108,697	131,212	26,454	293,434	586,586	93.8	38,678	—15,232	—23,812	—156,403
Spokane International	April	152	58,937	603	65,269	25,324	8,771	2,363	21,809	62,094	95.1	3,175	—2,244	—5,306	8,335
	4 mos.	152	202,342	2,626	231,841	52,819	28,684	8,968	84,953	187,596	80.9	44,245	23,883	11,420	28,005
Mississippi Central	April	150	62,001	1,475	65,619	13,452	11,559	6,858	19,446	56,109	85.5	9,510	4,847	518	—7,094
	4 mos.	150	251,997	7,772	268,951	60,720	41,863	28,175	82,812	232,382	86.4	36,569	18,306	207	—19,257
Missouri & Arkansas	April	365	88,591	1,208	95,576	26,944	11,101	6,826	30,416	80,235	83.9	15,341	10,951	2,125	6,059
	4 mos.	365	345,600	5,300	382,473	87,165	42,476	27,694	124,433	300,969	78.7	81,504	63,966	29,867	13,351
Missouri-Illinois	April	193	157,548	293	161,178	20,992	22,451	2,860	46,861	98,604	61.2	62,574	46,290	35,280	20,269
	4 mos.	193	648,358	1,191	659,114	67,837	86,113	12,427	188,625	376,190	57.1	282,924	219,992	176,318	149,522
Missouri-Kansas-Texas Lines	April	3,293	1,762,724	157,234	2,144,665	288,843	366,181	106,853	860,748	1,759,760	82.1	384,905	213,222	40,309	6,716
	4 mos.	3,294	7,086,125	637,183	8,603,009	1,072,268	1,444,888	422,572	3,551,519	6,995,319	81.3	1,607,690	968,938	251,762	44,501
Missouri Pacific	April	7,146	5,326,331	427,680	6,377,819	1,039,678	1,305,713	246,794	2,438,286	5,285,568	82.9	1,092,251	592,171	282,012	29,234
	4 mos.	7,146	22,970,232	1,708,465	27,166,880	3,616,247	5,465,043	977,114	10,585,545	21,723,884	80.0	5,442,996	3,405,533	2,063,553	1,089,388
Gulf Coast Lines	April														
	4 mos.														
International Great Northern	April	1,155	781,933	59,718	959,953	158,652	193,354	31,675	435,709	878,039	91.5	81,914	16,992	—45,552	—88,287
	4 mos.	1,155	2,960,126	326,140	3,749,222	625,770	773,291	122,037	1,656,157	3,397,726	90.6	351,496	93,802	—184,573	—284,486
Mobile & Ohio	April	1,181	907,280	19,407	978,990	176,421	158,921	42,247	339,121	759,992	77.6	218,998	154,719	72,381	91,414
	4 mos.	1,181	3,468,599	87,335	3,738,771	643,537	721,846	173,154	1,371,279	3,083,830	82.5	654,941	394,423	97,148	186,309
Monongahela	April	172	391,725	621	393,952	35,875	31,482	464	84,435	155,388	39.4	238,564	199,515	122,557	—60,105
	4 mos.	172	1,715,797	2,285	1,729,129	148,551	152,557	2,007	381,737	695,795	40.2	1,033,334	875,400	558,292	211,669

Continued on next left-hand page

MORE POWER TO FREIGHT PROGRESS WITH MORE . . .

Modern Power

MODERN high-speed, high-powered freight locomotives, with lowest possible maintenance both for the locomotive and right-of-way, are handling freight trains today at what, only a few years back, would have been considered very good fast passenger train schedules. Modern power pays big returns on the investment.

●

AMERICAN LOCOMOTIVE COMPANY

30 CHURCH STREET • • • • NEW YORK·N·Y

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1940—CONTINUED

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Operating income	Net railway operating income 1940	Net railway operating income 1939
Montour	April	51	$159,656	$.....	$161,067	$9,724	$46,158	$880	$39,703	$102,853	63.9	$58,214	$34,160	$61,137	—$1,469
	4 mos.	51	608,613	.....	615,770	36,580	164,257	3,864	175,294	405,236	65.8	210,534	138,359	249,998	151,766
Nashville, Chattanooga & St. Louis	April	1,111	1,074,718	78,418	1,288,120	150,842	234,733	63,744	493,418	999,941	77.6	288,179	209,943	175,631	121,278
	4 mos.	1,111	3,987,081	440,886	4,976,821	493,304	978,565	273,078	2,020,616	3,994,294	80.3	982,527	664,256	541,938	677,474
Nevada Northern	April	165	61,976	397	66,930	7,479	2,144	1,290	10,367	26,021	38.9	40,909	28,464	30,342	20,793
	4 mos.	165	214,923	3,084	235,660	29,934	10,114	4,949	41,189	106,285	45.1	129,375	84,146	92,108	69,197
New York Central	April	10,986	20,847,823	4,035,669	27,944,405	3,184,828	6,217,394	552,330	11,418,351	22,597,752	80.9	5,346,653	2,758,252	1,593,059	14,705
	4 mos.	10,992	85,177,066	18,553,529	115,956,481	11,589,819	24,779,120	2,165,796	46,636,224	90,249,061	77.8	25,707,420	14,335,269	9,591,304	4,545,427
Pittsburgh & Lake Erie	April	233	1,405,933	34,717	1,491,536	152,201	694,225	29,391	513,742	1,466,665	98.3	24,871	—126,084	124,172	—119,392
	4 mos.	233	6,252,191	168,640	6,629,423	557,487	2,829,916	113,687	2,234,557	6,045,954	91.2	583,469	88,645	890,745	300,346
New York, Chicago & St. Louis	April	1,704	3,389,537	60,782	3,553,465	370,539	598,749	124,723	1,260,346	2,478,576	69.8	1,074,889	844,076	544,231	301,728
	4 mos.	1,704	14,326,916	231,050	14,987,774	1,419,199	2,494,806	490,286	5,538,167	10,421,105	69.5	4,566,669	3,623,512	2,359,746	1,866,460
New York, New Haven & Hartford	April	1,871	3,843,056	1,918,972	6,443,365	907,049	1,111,849	118,433	2,570,528	5,102,276	79.2	1,341,089	791,089	197,585	513,754
	4 mos.	1,868	15,567,386	8,314,656	26,625,595	3,075,206	4,560,070	427,607	10,657,474	20,271,096	76.1	6,354,499	4,139,499	1,715,597	2,098,782
New York Connecting	April	21	184,314	.....	195,869	27,386	9,196	.....	31,364	69,362	35.4	126,507	82,934	89,095	80,535
	4 mos.	21	781,519	.....	819,930	106,018	24,246	.....	118,288	254,159	31.0	565,771	393,499	424,903	526,045
New York, Ontario & Western	April	576	379,308	3,569	428,910	48,427	110,102	15,009	230,880	423,030	98.6	5,880	—41,488	—76,795	23,681
	4 mos.	576	1,456,786	19,098	1,645,727	206,890	402,123	63,120	964,049	1,716,370	104.3	—70,643	—259,693	—370,078	—13,559
New York, Susquehanna & Western	April	144	220,164	17,940	247,168	18,709	26,838	1,170	103,705	159,781	64.6	87,387	57,359	39,276	30,833
	4 mos.	144	933,306	74,302	1,054,232	65,624	101,937	7,419	427,824	649,172	61.6	405,060	283,265	180,326	109,964
Norfolk & Western	April	2,191	7,443,438	135,533	7,811,846	931,938	1,703,974	146,799	1,739,985	4,714,474	60.4	3,097,372	1,991,140	2,275,802	280,182
	4 mos.	2,191	31,276,372	608,748	32,807,603	3,298,357	6,784,634	571,823	7,306,521	18,724,880	57.1	14,082,723	9,348,351	10,435,355	6,167,752
Norfolk Southern	April	805	349,130	3,097	367,468	73,332	54,042	24,364	134,815	305,917	83.3	61,551	28,226	9,840	25,998
	4 mos.	805	1,267,721	11,084	1,339,453	287,821	216,360	99,500	538,518	1,224,995	91.5	114,458	—17,157	—81,047	—23,066
Northern Pacific	April	6,720	4,790,468	239,540	5,426,677	745,590	1,180,297	178,616	1,852,948	4,224,616	77.8	1,202,061	632,909	928,959	270,949
	4 mos.	6,720	16,747,275	989,098	19,368,186	2,581,884	4,184,101	634,713	7,467,189	15,932,686	82.3	3,435,500	1,209,654	2,425,205	436,835
Northwestern Pacific	April	352	204,725	42,347	273,747	71,996	51,245	2,464	138,529	274,926	100.4	—1,179	—21,420	—32,407	—34,025
	4 mos.	352	664,508	159,873	918,181	283,433	198,487	14,316	539,428	1,077,769	117.4	—159,588	—240,208	—281,769	—239,410
Oklahoma City-Ada-Atoka	April	132	24,926	333	26,924	3,997	1,140	893	10,966	18,618	69.2	8,306	5,948	1,097	18,818
	4 mos.	132	88,216	1,114	96,281	17,542	5,595	3,090	43,292	76,066	79.0	20,215	10,367	—5,992	20,419
Pennsylvania	April	10,270	25,962,714	5,341,436	34,521,246	3,301,665	6,436,044	710,002	12,475,993	24,145,652	69.9	10,375,594	6,528,881	5,619,222	3,762,986
	4 mos.	10,270	109,725,415	23,007,754	143,123,811	13,391,382	30,058,386	2,808,808	54,034,795	105,255,684	73.5	37,868,127	24,084,987	21,247,163	17,606,808
Long Island	April	379	573,864	1,146,573	1,808,450	207,531	347,769	13,418	915,221	1,528,152	84.5	280,298	—5,550	—165,635	—112,228
	4 mos.	379	2,281,008	4,543,928	7,154,502	814,223	1,471,490	40,241	3,738,267	6,211,688	86.8	942,834	35,532	—615,107	—558,987
Pennsylvania-Reading Seashore Lines	April	411	270,355	107,328	394,951	80,676	99,658	9,883	303,085	508,394	128.7	—113,443	—192,219	—261,635	—226,844
	4 mos.	411	1,086,319	387,468	1,543,579	328,832	387,123	27,613	1,109,880	1,919,572	124.4	—375,993	—667,582	—957,398	—843,429
Pere Marquette	April	2,114	2,582,852	52,762	2,759,946	336,306	583,498	72,299	990,909	2,082,796	75.5	677,150	494,686	351,261	—31,282
	4 mos.	2,114	10,180,882	262,949	10,922,135	1,288,905	2,257,066	256,073	4,127,446	8,308,449	76.1	2,613,686	1,899,285	1,448,497	679,388
Pittsburg & Shawmut	April	98	114,574	.....	115,041	13,422	18,706	2,177	28,353	67,602	58.8	47,439	43,820	34,757	—12,430
	4 mos.	98	328,892	.....	330,169	42,124	74,940	7,513	94,374	235,888	71.4	94,281	83,106	49,044	—7,577
Pittsburgh & West Virginia	April	136	283,334	27	300,471	72,019	74,266	16,525	72,159	259,412	86.3	41,059	16,473	25,455	—6,191
	4 mos.	136	1,294,829	124	1,365,134	212,806	293,585	68,032	305,747	972,879	71.3	392,255	295,538	328,781	194,770
Pittsburg, Shawmut & Northern	April	190	98,076	.....	98,634	12,815	17,377	1,233	32,089	69,168	70.1	29,466	24,140	14,520	—13,820
	4 mos.	190	421,092	.....	424,523	45,973	68,026	4,517	136,478	278,044	65.5	146,479	124,869	86,262	37,044
Reading	April	1,449	4,296,773	238,560	4,765,239	378,280	933,487	70,325	1,885,686	3,410,698	71.6	1,354,541	965,816	930,549	653,622
	4 mos.	1,451	17,940,538	1,061,851	19,960,967	1,498,350	3,932,822	281,051	7,944,394	14,246,002	71.4	5,714,965	4,113,848	3,787,502	3,212,880
Richmond, Fredericksburg & Potomac	April	118	404,403	247,294	789,094	98,124	151,700	10,172	315,461	636,175	80.6	152,919	105,699	29,003	73,130
	4 mos.	118	1,619,386	1,375,960	3,495,499	318,522	574,910	39,096	1,337,672	2,500,126	71.5	995,373	731,835	389,593	339,942
Rutland	April	407	209,009	22,082	280,891	29,752	53,745	7,993	133,859	235,352	83.8	45,539	27,742	27,511	—5,179
	4 mos.	407	762,772	107,014	1,099,178	122,916	228,191	38,801	543,490	971,999	88.4	127,179	45,786	44,299	—81,896
St. Louis-San Francisco	April	4,814	2,895,183	251,110	3,471,656	510,620	871,015	116,753	1,423,072	3,107,209	89.5	364,447	36,977	27,407	—18,790
	4 mos.	4,818	11,822,981	1,010,943	14,157,559	2,098,824	3,443,428	480,009	5,916,892	12,660,300	89.4	1,497,259	219,534	289,828	—72,058
St. Louis, San Francisco & Texas	April	159	89,718	274	94,796	22,063	13,715	7,888	48,627	97,442	102.8	—2,646	—10,701	—34,071	—13,501
	4 mos.	157	381,714	1,493	402,428	94,150	55,509	31,511	208,090	412,425	102.5	—9,997	—43,024	—141,862	—100,947

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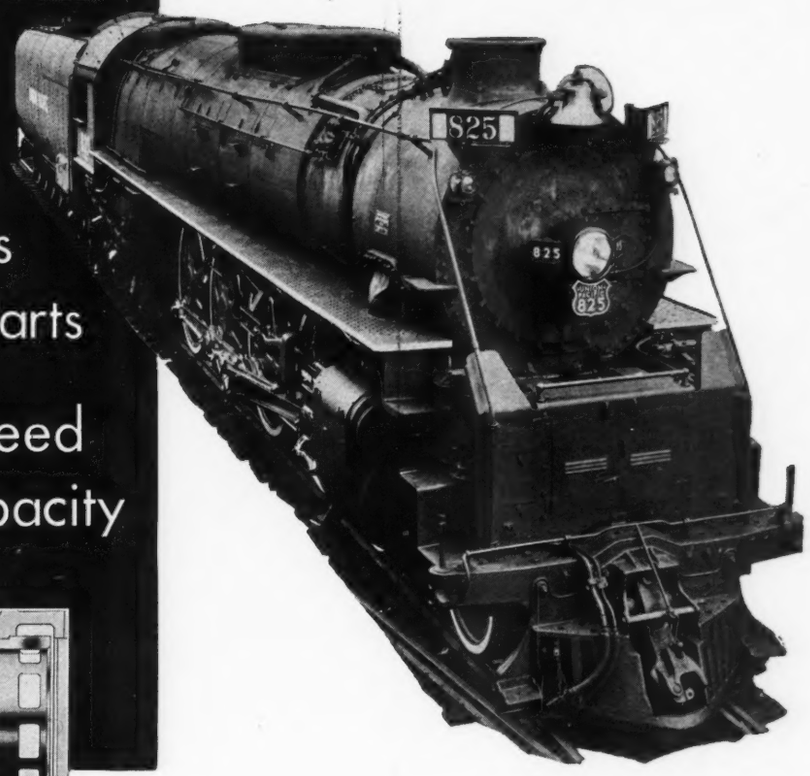
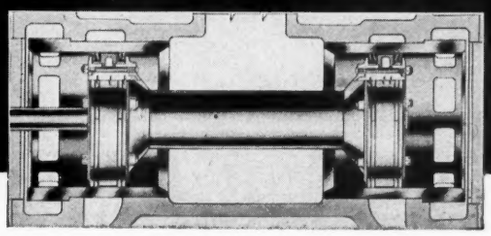
HSGI

Light Weight Valves and Wear-resisting Parts

Increase High Speed Power Earning Capacity





1810 — 130th ANNIVERSARY — 1940

SHOCKS and wear are reduced to a minimum. All components in the valve gear assembly give longer service, thereby reducing valve adjustments as well as pin and bushing renewals.

Naturally, the light weight reduces friction and wear on the Bushings and Packing Rings. Use of HUNT-SPILLER *Air Furnace* GUN IRON for these last two components in combination with the Light Weight Valve assures new standards of efficiency and economy of operation.

H S G I
Reg. U.S. Trade Mark
Cylinder Bushings
Cylinder Packing Rings
Pistons or Piston Bull Rings
Valve Bushings
Valve Packing Rings
Valve Bull Rings
Crosshead Shoes
Hub Liners
Shoes and Wedges
Floating Rod Bushings
Finished Parts
Dunbar Sectional Type Packing
Duplex Sectional Type Packing
for Cylinders and Valves
(Duplex Springs for Above
Sectional Packing)
Cylinder Snap Rings
Valve Rings All Shapes
Light Weight Valves
Cylinder Liners and Pistons
for Diesel Service

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HUNT-SPILLER *Air Furnace* GUN IRON

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1940—CONTINUED

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Operating income	Net railway operating income 1940	Net railway operating income 1939
St. Louis Southwestern Lines	April	1,649	$1,488,421	$23,991	$1,578,349	$314,955	$291,555	$83,281	$498,416	$1,269,204	80.4	$309,145	$197,821	$44,690	$183,407
	4 mos.	1,680	6,239,226	90,452	6,589,475	941,924	1,025,239	330,670	2,091,560	4,704,976	71.4	1,884,499	1,442,344	881,620	488,869
Seaboard Air Line	April	4,314	3,065,830	699,221	4,145,615	553,270	787,456	178,373	1,561,840	3,315,099	80.0	830,516	515,516	376,077	347,174
	4 mos.	4,314	12,546,168	3,572,848	17,707,390	2,180,652	3,154,499	734,357	6,509,788	13,583,364	76.7	4,124,026	2,759,026	2,096,114	1,503,811
Southern Railway	April	6,594	6,892,646	653,812	8,226,577	1,046,365	1,436,771	162,482	2,838,407	5,814,260	70.7	2,412,317	1,733,543	1,482,330	1,302,036
	4 mos.	6,601	28,060,955	2,819,670	33,539,290	4,355,257	5,831,254	659,567	11,823,573	23,992,005	71.5	9,547,285	6,806,018	5,760,524	5,081,773
Alabama Great Southern	April	315	558,892	43,201	643,714	85,667	133,385	12,035	183,784	440,002	68.4	203,712	130,362	131,254	136,596
	4 mos.	315	2,093,440	168,000	2,427,107	354,442	529,025	50,915	742,437	1,771,279	73.0	655,828	418,775	439,925	467,900
Cincinnati, New Orleans & Texas Pacific	April	337	1,326,736	77,310	1,491,166	188,140	278,047	31,603	390,364	945,308	63.4	545,858	374,800	382,984	356,071
	4 mos.	337	5,195,716	475,450	6,017,105	695,866	1,165,843	119,016	1,596,012	3,809,239	63.3	2,207,866	1,573,852	1,641,458	1,569,700
Georgia Southern & Florida	April	398	150,793	35,641	206,304	34,460	37,651	2,001	90,704	174,799	84.7	31,505	15,374	1,176	4,141
	4 mos.	398	570,706	248,217	905,007	142,278	153,720	7,161	376,587	720,799	79.6	184,208	118,661	69,839	76,607
New Orleans & Northeastern	April	204	224,508	16,563	259,493	34,063	35,531	5,821	78,568	167,020	64.4	92,473	60,475	35,473	38,580
	4 mos.	204	896,417	59,718	1,030,515	139,933	140,251	22,718	319,052	672,051	65.2	358,464	235,091	140,912	107,200
Southern Pacific	April	8,642	11,201,654	1,308,753	13,565,185	1,471,741	2,603,830	390,804	5,075,412	10,349,279	76.3	3,215,906	2,020,070	1,206,045	991,845
	4 mos.	8,642	41,363,298	5,597,150	51,154,131	5,882,918	9,954,779	1,460,475	19,817,046	40,337,149	78.9	10,816,982	6,073,400	3,245,215	2,857,153
Southern Pacific Steamship Lines	April	....	....	24,219	675,223	16,412	105,441	17,561	527,131	681,363	100.9	—6,140	—29,412	—29,568	57,343
	4 mos.	....	619,677	103,053	2,946,179	63,038	421,887	76,225	2,080,895	2,701,413	91.7	244,766	155,328	151,136	117,470
Texas & New Orleans	April	4,417	2,701,728	291,032	3,727,146	586,998	663,753	127,132	1,251,360	2,833,781	76.0	893,365	586,346	348,147	283,248
	4 mos.	4,416	3,136,397	1,088,059	14,955,453	2,197,873	2,576,046	508,328	5,056,970	11,160,606	74.6	3,794,847	2,545,634	1,488,173	1,304,599
Spokane, Portland & Seattle	April	948	631,801	19,860	706,470	180,418	85,932	11,041	249,806	555,151	78.6	151,319	72,469	29,881	27,775
	4 mos.	948	2,384,004	95,297	2,694,391	480,417	342,434	41,035	1,022,304	1,996,215	74.1	698,176	413,049	241,074	146,478
Tennessee Central	April	286	191,460	4,146	208,507	41,477	36,029	6,647	69,876	164,161	78.7	44,346	31,652	16,965	10,984
	4 mos.	286	820,093	19,753	891,130	148,837	136,739	27,286	307,770	659,717	74.0	231,413	171,543	105,949	50,782
Texas & Pacific	April	1,936	1,785,284	174,967	2,158,801	254,988	419,567	73,580	702,558	1,562,232	72.4	596,569	441,963	334,604	314,335
	4 mos.	1,936	7,196,760	700,473	8,661,476	1,012,658	1,562,435	297,694	2,767,227	6,105,981	70.5	2,555,495	1,904,441	1,511,353	1,328,725
Texas Mexican	April	162	70,073	224	83,834	11,881	9,462	2,986	29,291	59,421	70.9	24,413	18,516	14,981	38,749
	4 mos.	162	224,375	1,882	280,261	44,421	38,094	12,206	115,255	233,220	83.2	47,041	23,617	10,506	48,175
Toledo, Peoria & Western	April	239	180,605	1	183,016	53,804	15,962	17,288	42,269	139,735	76.4	43,281	29,244	13,483	19,268
	4 mos.	239	749,116	44	758,741	167,312	58,434	68,908	175,379	511,059	67.4	247,682	170,952	107,892	84,502
Union Pacific System	April	9,889	10,047,976	1,169,858	12,298,589	1,204,836	2,493,352	501,634	4,257,007	9,181,901	74.7	3,116,688	1,734,206	1,091,597	707,011
	4 mos.	9,894	39,412,225	4,621,092	48,284,751	4,297,781	9,667,157	1,681,446	17,575,708	36,003,636	74.6	12,281,115	6,854,153	4,278,965	3,177,311
Utah	April	111	49,225	.....	49,327	7,440	22,263	371	14,758	48,933	99.2	394	—6,308	—3,863	1,663
	4 mos.	111	293,463	1,962	294,123	33,461	100,629	1,680	84,337	236,981	80.6	57,142	18,139	23,791	24,592
Virginian	April	639	1,913,169	1,962	1,962,692	169,976	398,722	25,403	282,055	904,827	46.1	1,057,865	772,865	810,872	—110,499
	4 mos.	639	8,164,828	10,005	8,369,198	676,144	1,576,146	101,130	1,246,976	3,725,862	44.5	4,643,336	3,433,336	3,580,354	2,237,443
Wabash	April	2,409	3,073,372	174,931	3,520,389	531,344	599,717	146,983	1,450,817	2,890,329	82.1	630,060	400,469	57,167	—20,871
	4 mos.	2,409	12,963,055	766,409	14,845,909	1,879,850	2,523,816	583,590	6,130,096	11,757,405	79.2	3,088,504	2,164,424	813,364	409,607
Ann Arbor	April	294	320,131	1,573	330,415	33,653	66,942	12,743	142,690	268,493	81.3	61,922	39,904	24,556	—47,886
	4 mos.	294	1,292,896	6,651	1,330,472	110,870	289,404	54,466	606,327	1,109,378	83.4	221,094	132,796	80,933	—1,819
Western Maryland	April	859	1,383,659	4,628	1,431,182	163,119	296,375	39,714	383,571	932,834	65.2	498,348	388,348	393,139	97,666
	4 mos.	859	6,013,078	22,218	6,277,560	705,819	1,313,969	159,151	1,656,021	4,030,063	64.2	2,247,497	1,807,497	1,817,929	1,195,960
Western Pacific	April	1,208	1,325,965	38,827	1,388,684	288,260	209,799	64,481	543,430	1,161,642	83.7	227,042	138,758	45,322	—25,606
	4 mos.	1,208	4,645,080	119,860	4,862,909	832,297	855,718	240,617	2,012,092	4,163,861	85.6	699,048	357,792	49,466	—171,980
Wheeling & Lake Erie	April	508	1,120,740	.....	1,166,548	143,384	230,491	35,757	353,882	797,011	68.3	369,537	218,376	288,824	44,176
	4 mos.	508	4,727,868	18	4,903,746	498,405	1,044,452	146,637	1,516,342	3,336,129	68.0	1,567,617	951,458	1,255,537	843,221